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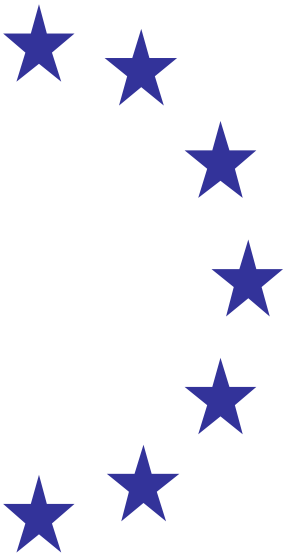
EUROPEAN ECONOMY

EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR
ECONOMIC AND FINANCIAL AFFAIRS



ANNEX

The impact of ageing on public expenditure: projections for the EU25 Member States on pensions, health care, long-term care, education and unemployment transfers (2004-2050)

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

ANNEXES

1. SUMMARY OF THE BASELINE PROJECTIONS RESULTS FOR ALL AGE-RELATED PUBLIC SPENDING ITEMS 7

2. CHARACTERISTICS OF PENSION SYSTEMS IN THE EU MEMBER STATES 13

3. DETAILED RESULTS OF THE PENSION PROJECTIONS – SENSITIVITY TESTS 32

4. METHODOLOGIES USED TO PROJECT HEALTH CARE SPENDING 46

5. DATA INPUTS TO THE HEALTH CARE PROJECTIONS 59

6. ADDITIONAL SCENARIOS FOR PUBLIC SPENDING ON HEALTH CARE 73

7. DETAILED RESULTS OF THE PROJECTIONS ON HEALTH CARE 81

8. DATA USED TO MAKE THE PROJECTIONS ON LONG-TERM CARE 87

9. ADDITIONAL SCENARIOS FOR PUBLIC SPENDING ON LONG-TERM CARE 90

10. METHODOLOGY FOR CORE PROJECTIONS OF UNEMPLOYMENT BENEFIT EXPENDITURE 95

11. THE APPROACH USED AT EU LEVEL TO ASSESS THE SUSTAINABILITY OF PUBLIC FINANCES 97

12. DEFINITIONS AND PROPERTIES OF DEBT PROJECTIONS AND THE SUSTAINABILITY INDICATORS 107

13. A SENSITIVITY TEST FOR ASSESSING THE SUSTAINABILITY OF PUBLIC FINANCES: THE COST OF DELAY IN ACHIEVING BUDGETARY CONSOLIDATION 112

14. GUIDELINES FOR TAKING INTO ACCOUNT ASSETS OF PUBLIC PENSION FUNDS IN THE ASSESSMENT OF THE SUSTAINABILITY OF PUBLIC FINANCES 113

15. LIST OF AWG MEMBERS AND CONTRIBUTORS 120

STATISTICAL ANNEX:COUNTRY TABLES 125

LIST OF TABLES

Table 1-1 Total age-related public spending: pension, health care, long-term care, education and unemployment transfers (% of GDP) – baseline scenario 7
Table 1-2 Gross public pension expenditure (% of GDP) – baseline scenario 8
Table 1-3 Projections for public spending on health care –AWG reference scenario 9
Table 1-4 Projections for public spending on long-term care –AWG reference scenario 10
Table 1-5 Projections for public spending on education (% of GDP) – baseline scenario 11
Table 1-6 Projections for public spending on unemployment transfers (% of GDP) – baseline scenario 12
Table 2-1 Pension benefit formulation in the social security (public) pension schemes in Member States 13
Table 2-2 Some statistical indicators related to pensions 17
Table 2-3 Indexation and taxation regimes of the pension schemes 18
Table 2-4 Contribution rates of public pension schemes 20
Table 2-5 Pension expenditure projection models in the Member States 23
Table 2-6 Main features of recent pension reforms 28
Table 3-1 High life expectancy scenario: gross public pension expenditure as a share of GDP between 2004 and 2050 32
Table 3-2 High life expectancy scenario: gross total pension expenditure as a share of GDP between 2004 and 2050 32
Table 3-3 High life expectancy scenario: total assets in pension schemes as a share of GDP between 2004 and 2050 33
Table 3-4 High life expectancy scenario: contributions to public pension schemes as a share of public pensions 33
Table 3-5 Higher employment rate scenario: gross public pension expenditure as a share of GDP between 2004 and 2050 34
Table 3-6 Higher employment rate scenario: gross total pension expenditure as a share of GDP between 2004 and 2050 34
Table 3-7 Higher employment rate scenario: total assets in pension schemes as a share of GDP between 2004 and 2050 35
Table 3-8 Higher employment rate scenario: contributions to public pension schemes as a share of public pensions 35
Table 3-9 Higher employment rate of older workers scenario: gross public pension expenditure as a share of GDP between 2004 and 2050 36
Table 3-10 Higher employment rate of older workers scenario: gross total pension expenditure as a share of GDP between 2004 and 2050 36
Table 3-11 Higher employment rate of older workers scenario: total assets in pension schemes as a share of GDP between 2004 and 2050 37
Table 3-12 Higher employment rate of older workers scenario: contributions to public pension schemes as a share of public pensions 37
Table 3-13 Higher labour productivity scenario: gross public pension expenditure as a share of GDP between 2004 and 2050 38

Table 3-14 Higher labour productivity scenario: gross total pension expenditure as a share of GDP between 2004 and 2050 38
Table 3-15 Higher labour productivity scenario: total assets in pension schemes as a share of GDP between 2004 and 2050 39
Table 3-16 Higher labour productivity scenario: contributions to public pension schemes as a share of public pensions 39
Table 3-17 Lower labour productivity scenario: gross public pension expenditure as a share of GDP between 2004 and 2050 40
Table 3-18 Lower labour productivity scenario: gross total pension expenditure as a share of GDP between 2004 and 2050 40
Table 3-19 Lower labour productivity scenario: total assets in pension schemes as a share of GDP between 2004 and 2050 41
Table 3-20 Lower labour productivity scenario: contributions to public pension schemes as a share of public pensions 41
Table 3-21 Higher interest rate scenario: gross public pension expenditure as a share of GDP between 2004 and 2050 42
Table 3-22 Higher interest rate scenario: gross total pension expenditure as a share of GDP between 2004 and 2050 42
Table 3-23 Higher interest rate scenario: total assets in pension schemes as a share of GDP between 2004 and 2050 43
Table 3-24 Higher interest rate scenario: contributions to public pension schemes as a share of public pensions 43
Table 3-25 Lower interest rate scenario: gross public pension expenditure as a share of GDP between 2004 and 2050 44
Table 3-26 Lower interest rate scenario: gross total pension expenditure as a share of GDP between 2004 and 2050 44
Table 3-27 Lower interest rate scenario: total assets in pension schemes as a share of GDP between 2004 and 2050 45
Table 3-28 Lower interest rate scenario: contributions to public pension schemes as a share of public pensions 45
Table 5-1 Overview of available age-related expenditure profiles on health care 60
Table 5-2 Projected changes in life expectancy for elderly cohorts - *males* 64
Table 5-3 Projected changes in life expectancy for elderly cohorts - *females* 65
Table 5-4 Assumptions on the evolution of unit costs – average yearly rate of growth of GDP per capita 66
Table 5-5 Assumptions on the evolution of unit costs – average yearly rate of growth of GDP per worker 66
Table 5-6 Overview of studies with data on death-related costs for particular EU Member States 68
Table 5-7 The ratio between cost borne by a person with *N* remaining years of life and a survivor, by age cohort 70
Table 6-1 Overview of additional scenarios for public spending on health care 73
Table 6-2 Projection results for *high life expectancy* scenario (A-I) 74
Table 6-3 Projection results for *improved health* scenario (A-II) 75

Table 6-4 Projection results for the *EU10 cost convergence* scenario (A-III) 76
Table 6-5 Projection results for fast growth scenario (A-IV) – unit costs evolve 1% faster than GDP per capita between 2005 and 2014 77
Table 6-6 Available data on the composition of health care spending and on the recent evolution of unit costs 79
Table 6-7 Projection results for scenario A-V, *fast cost growth* variant (respective components increasing 1 p.p. above GDP per capita between 2005 and 2014) 80
Table 6-8 Projection results for scenario A-V, *extrapolation of past trends* variant (respective components following past trends between 2005 and 2014) 80
Table 7-1 *Pure ageing* scenario (I) : projected spending on health care as % of GDP 81
Table 7-2 *Constant health* scenario (II) : projected spending on health care as % of GDP 81
Table 7-3 *Death-related costs* scenario (III) : projected spending on health care as % of GDP 82
Table 7-4 Scenario capturing income elasticity of demand exceeding unity (IV) : projected spending on health care as % of GDP 82
Table 7-5 Scenario where unit costs evolve in line with GDP per worker (V) : projected spending on health care as % of GDP 83
Table 7-6 *AWG reference* scenario (VI) : projected spending on health care as % of GDP ... 83
Table 7-7 *High life expectancy* scenario (A-I) : projected spending on health care as % of GDP 84
Table 7-8 *Improved health* scenario (A-II) : projected spending on health care as % of GDP 84
Table 7-9 *EU10 cost convergence* scenario (A-III) : projected spending on health care as % of GDP 85
Table 7-10 *Fast cost growth* scenario (unit costs growing 1 p.p. above GDP per capita between 2005 and 2014) (A-IV) : projected spending on health care as % of GDP 85
Table 7-11 *Extrapolation of past trends* scenario (all components following past trends between 2005 and 2014) (A-V) : projected spending on health care as % of GDP..... 86
Table 8-1 Detailed description of data received on long-term care 88
Table 9-1 Overview of additional scenarios for public spending on long-term care..... 90
Table 9-2 Projection results for the "*high life expectancy* scenario (A-I) 91
Table 9-3 Projection results for the "*improved disability"* scenario (A-II)..... 92
Table 9-4 Projection results for the scenario *"increase in formal care" (A-III)*..... 93
Table 9-5 Projection results for the scenario *"increase in formal care" (A-IV)* 94
Table 11-1 Qualitative factors taken on board in reaching policy recommendations on the sustainability of public finances..... 103

1. SUMMARY OF THE BASELINE PROJECTIONS RESULTS FOR ALL AGE-RELATED PUBLIC SPENDING ITEMS

Table 1-1 Total age-related public spending: pension, health care, long-term care, education and unemployment transfers (% of GDP) – baseline scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	*Change 2004-*
BE	25.4	25.3	25.1	25.5	26.6	28.2	29.9	31.1	31.6	31.8	31.7	*6.3*
DK	26.8	26.8	27.0	27.9	28.6	29.5	30.8	31.7	32.1	31.9	31.6	*4.8*
DE	23.7	23.4	22.5	22.2	22.9	23.8	24.7	25.4	25.7	26.1	26.4	*2.7*
GR *	*8.9*	*8.9*	*8.7*	*8.7*	*8.7*	*8.9*	*9.1*	*9.4*	*9.7*	*9.9*	*10.2*	*1.2*
ES	20.1	20.0	19.7	19.6	20.4	21.7	23.4	25.2	27.3	28.7	28.6	*8.5*
FR	26.7	26.6	26.7	26.9	27.6	28.1	28.6	29.4	29.6	29.7	29.6	*2.9*
IE	15.5	15.2	15.4	16.3	17.1	18.0	18.8	19.7	20.7	22.1	23.3	*7.8*
IT	26.2	26.2	25.7	25.6	25.9	26.4	27.3	28.1	28.7	28.6	28.0	*1.7*
LU	19.5	19.5	19.4	20.5	21.6	23.5	25.0	26.6	27.4	28.1	27.8	*8.2*
NL	20.9	20.5	20.6	21.5	22.4	23.4	24.7	25.7	26.2	26.1	25.8	*5.0*
AT	25.2	24.9	24.2	24.0	24.2	25.2	26.0	26.5	26.1	25.7	25.3	*0.2*
PT	23.8	24.2	24.2	24.9	26.3	27.1	28.0	29.5	31.1	32.6	33.6	*9.7*
FI	25.4	25.2	25.6	26.5	27.7	28.8	30.1	30.8	30.7	30.6	30.6	*5.2*
SE	29.6	29.2	28.2	28.3	28.6	29.5	30.9	31.7	31.9	31.7	31.8	*2.2*
UK	19.6	19.6	19.4	19.5	19.9	20.7	21.8	22.5	22.9	23.2	23.6	*4.0*
CY	16.4	16.4	16.5	16.7	17.6	18.8	20.5	21.9	23.4	25.0	28.2	*11.8*
CZ	19.3	19.3	18.8	18.6	19.2	20.0	21.0	22.4	24.1	25.5	26.4	*7.2*
EE	17.1	17.5	16.5	15.4	15.1	15.0	14.8	14.6	14.3	14.3	14.4	*-2.7*
HU	20.7	20.9	21.0	21.3	22.3	22.9	23.5	24.7	26.4	27.4	27.7	*7.0*
LT	16.0	16.0	15.3	14.8	15.1	15.7	16.3	16.6	16.8	17.0	17.4	*1.4*
LV	17.5	16.9	14.6	14.1	14.6	15.5	16.0	16.2	16.2	16.1	16.2	*-1.3*
MT	18.2	18.2	19.1	19.7	20.4	20.5	20.0	19.5	19.2	18.9	18.5	*0.3*
PL	23.7	23.4	20.2	18.1	17.9	17.7	17.6	17.5	17.3	17.1	17.0	*-6.7*
SK	16.2	16.5	15.4	14.9	15.3	15.8	16.5	17.1	17.7	18.3	19.1	*2.9*
SI	24.2	24.2	24.0	24.5	25.5	27.0	28.6	30.2	31.7	33.0	33.8	*9.7*
EU25	23.4	23.3	22.7	22.7	23.2	24.0	24.9	25.8	26.4	26.7	26.8	*3.4*
EU15	23.5	23.3	22.9	23.0	23.5	24.4	25.4	26.3	26.8	27.1	27.2	*3.7*
EU12	24.0	23.9	23.4	23.5	24.1	24.9	25.9	26.9	27.5	27.8	27.8	*3.7*
EU10	21.1	21.0	19.4	18.4	18.7	19.0	19.4	19.9	20.5	21.0	21.4	*0.2*
EU9 (EU10-PI)	19.3	19.3	18.8	18.7	19.3	20.0	20.8	21.8	23.0	23.9	24.7	*5.4*

1) Total expenditure for GR does not include pension expenditure. The Greek authorities have agreed to provide the pension projections in 2006. In the context of the most recent assessment of the sustainability of public finances based on the Greek stability programme, public spending on pensions was projected to increase by 10.3% of GDP between 2004 and 2050.
2) Total expenditure for: GR, FR, PT, CY, EE, HU does not include long-term care
3) The projection results for public spending on long-term care for Germany does not reflect current legislation where benefit levels are fixed. A scenario which comes closer to the current setting of legislation projects that public spending would remain constant as a share of GDP over the projection period.
Note: these figures refer to the baseline projections for social security spending on pensions, education and unemployment transfers. For health care and long-term care, the projections refer to "AWG reference scenarios"

Table 1-2 Gross public pension expenditure (% of GDP) – baseline scenario

Country	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	Change 2004-2050
BE	10.4	10.4	10.4	11.0	12.1	13.4	14.7	15.5	15.7	15.7	15.5	5.1
CZ	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0	5.6
DK	9.5	9.6	10.1	10.8	11.3	12.0	12.8	13.3	13.5	13.1	12.8	3.3
DE	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1	1.7
EE	6.7	7.1	6.8	6.0	5.4	5.1	4.7	4.5	4.4	4.3	4.2	-2.5
GR	:	:	:	:	:	:	:	:	:	:	:	:
ES	8.6	8.7	8.9	8.8	9.3	10.4	11.8	13.4	15.2	16.2	15.7	7.1
FR	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8	2.0
IE	4.7	4.6	5.2	5.9	6.5	7.2	7.9	8.5	9.3	10.3	11.1	4.8
IT	14.2	14.3	14.0	13.8	14.0	14.4	15.0	15.6	15.9	15.4	14.7	0.4
CY	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8	10.5
LV	6.8	6.4	4.9	4.6	4.9	5.3	5.6	5.9	5.9	5.7	5.6	-1.2
LT	6.7	6.7	6.6	6.6	7.0	7.6	7.9	8.1	8.2	8.3	8.6	1.8
LU	10.0	10.0	9.8	10.9	11.9	13.7	15.0	16.4	17.0	17.7	17.4	7.4
HU	10.4	10.7	11.1	11.6	12.5	13.0	13.5	14.6	16.0	16.9	17.1	6.7
MT	7.4	7.5	8.8	9.8	10.2	10.0	9.1	8.4	7.9	7.5	7.0	-0.4
NL	7.7	7.4	7.6	8.3	9.0	9.7	10.7	11.4	11.7	11.4	11.2	3.5
AT	13.4	13.2	12.8	12.7	12.8	13.5	14.0	14.0	13.4	12.7	12.2	-1.2
PL	13.9	13.7	11.3	9.8	9.7	9.5	9.2	8.9	8.6	8.3	8.0	-5.9
PT	11.1	11.5	11.9	12.6	14.1	15.0	16.0	17.4	18.8	20.0	20.8	9.7
SI	11.0	11.0	11.1	11.6	12.3	13.3	14.4	15.6	16.8	17.8	18.3	7.3
SK	7.2	7.4	6.7	6.6	7.0	7.3	7.7	7.9	8.2	8.5	9.0	1.8
FI	10.7	10.4	11.2	12.0	12.9	13.5	14.0	14.1	13.8	13.7	13.7	3.1
SE	10.6	10.4	10.1	10.3	10.4	10.7	11.1	11.4	11.6	11.4	11.2	0.6
UK	6.6	6.7	6.6	6.7	6.9	7.3	7.9	8.3	8.4	8.4	8.6	2.0
EU15	10.6	10.5	10.4	10.5	10.8	11.4	12.1	12.6	12.9	13.0	12.9	2.3
EU10	10.9	10.9	9.8	9.2	9.5	9.7	9.8	10.1	10.6	10.9	11.1	0.3
EU12	11.5	11.5	11.3	11.4	11.8	12.5	13.2	13.8	14.2	14.3	14.1	2.6
EU25	10.6	10.6	10.3	10.4	10.7	11.3	11.9	12.5	12.8	12.8	12.8	2.2
EU9 (EU10-PL)	8.8	8.9	8.8	8.8	9.3	9.8	10.4	11.1	12.2	13.0	13.6	4.8

Table 1-3 Projections for public spending on health care –AWG reference scenario (% of GDP)

Country	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	Change (2004-50)
BE	6.2	6.2	6.4	6.6	6.8	6.9	7.1	7.3	7.5	7.6	7.6	1.4
DK	6.9	6.9	7.0	7.2	7.4	7.6	7.7	7.7	7.8	7.8	7.8	1.0
DE	6.0	6.1	6.3	6.5	6.7	6.8	6.9	7.0	7.1	7.2	7.2	1.2
GR	5.1	5.1	5.4	5.5	5.6	5.7	5.9	6.2	6.5	6.7	6.8	1.7
ES	6.1	6.1	6.3	6.5	6.7	7.0	7.3	7.6	7.9	8.1	8.3	2.2
FR	7.7	7.7	8.0	8.2	8.4	8.6	8.9	9.2	9.3	9.4	9.5	1.8
IE	5.3	5.3	5.5	5.7	5.9	6.2	6.4	6.7	6.9	7.1	7.3	2.0
IT	5.8	5.8	6.0	6.1	6.3	6.5	6.7	6.9	7.0	7.1	7.1	1.3
LU	5.1	5.1	5.3	5.4	5.6	5.7	5.9	6.1	6.2	6.3	6.3	1.2
NL	6.1	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.4	7.4	7.4	1.3
AT	5.3	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.8	6.8	1.6
PT	6.7	6.7	6.8	6.8	6.7	6.6	6.6	6.8	6.9	7.1	7.2	0.5
FI	5.6	5.6	5.8	6.0	6.2	6.4	6.6	6.9	7.0	7.0	7.0	1.4
SE	6.7	6.7	6.8	7.0	7.2	7.4	7.5	7.6	7.7	7.7	7.7	1.0
UK	7.0	7.0	7.2	7.4	7.6	7.9	8.1	8.4	8.7	8.8	8.9	1.9
CY	2.9	2.9	3.1	3.3	3.4	3.5	3.6	3.8	3.9	4.0	4.0	1.1
CZ	6.4	6.5	6.8	7.1	7.4	7.6	7.8	8.0	8.1	8.3	8.4	2.0
EE	5.4	5.5	5.8	6.0	6.1	6.1	6.2	6.3	6.4	6.5	6.5	1.1
HU	5.5	5.5	5.7	5.9	6.0	6.2	6.3	6.3	6.4	6.5	6.5	1.0
LT	3.7	3.7	4.0	4.2	4.3	4.3	4.4	4.4	4.5	4.6	4.6	0.9
LV	5.1	5.2	5.5	5.8	5.8	5.9	5.9	6.0	6.1	6.2	6.2	1.1
MT	4.2	4.3	4.5	4.8	5.0	5.3	5.5	5.7	5.9	6.0	6.1	1.8
PL	4.1	4.1	4.4	4.6	4.8	5.0	5.1	5.2	5.3	5.4	5.5	1.4
SK	4.4	4.4	4.7	5.0	5.2	5.5	5.7	5.9	6.0	6.2	6.3	1.9
SI	6.4	6.5	6.7	6.9	7.2	7.4	7.6	7.8	7.9	8.0	8.0	1.6
EU25	6.4	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	7.9	7.9	1.6
EU15	6.4	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.9	8.0	8.1	1.6
EU12	6.3	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.8	7.8	1.5
EU10	4.9	5.0	5.2	5.4	5.5	5.7	5.8	6.0	6.1	6.2	6.2	1.3
EU9 (EU10-PL)	5.5	5.5	5.7	5.9	6.1	6.3	6.4	6.5	6.6	6.7	6.8	1.3

Table 1-4 Projections for public spending on long-term care –AWG reference scenario (% of GDP) *

Country	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	Change (2004-50)
BE	0.9	0.9	0.9	1.0	1.1	1.1	1.3	1.4	1.6	1.8	1.8	1.0
DK	1.1	1.1	1.1	1.1	1.2	1.5	1.7	1.9	2.0	2.1	2.2	1.1
DE	1.0	1.0	1.0	1.0	1.2	1.3	1.4	1.5	1.6	1.9	2.0	1.0
EL												
ES	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.2
FR												
IE	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.9	1.1	1.2	0.6
IT	1.5	1.5	1.5	1.5	1.6	1.6	1.7	1.8	1.9	2.1	2.2	0.7
LU	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.2	1.3	1.4	1.5	0.6
NL	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.9	0.9	1.0	1.1	0.6
AT	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.5	0.9
PT												
FI	1.7	1.7	1.9	2.0	2.1	2.4	3.0	3.3	3.4	3.5	3.5	1.8
SE	3.8	3.8	3.7	3.5	3.7	4.2	4.9	5.1	5.2	5.3	5.5	1.7
UK	1.0	1.0	1.0	1.0	1.1	1.1	1.3	1.4	1.5	1.6	1.8	0.8
CY												
CZ	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.4
EE												
HU												
LT	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.9	0.4
LV	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.3
MT	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.1	1.1	1.2	1.1	0.2
PL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1
SK	0.7	0.8	0.8	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.3	0.6
SI	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.7	1.9	2.1	2.2	1.2
EU25	0.9	0.9	0.9	0.9	0.9	1.0	1.1	1.2	1.3	1.4	1.5	0.6
EU15	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	0.7
EU12	0.7	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.2	1.3	0.5
EU10	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.2
EU9 (EU10-PL)	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.3

* The projection results for public spending on long-term care for Germany does not reflect current legislation where benefit levels are fixed. A scenario which comes closer to the current setting of legislation projects that public spending would remain constant as a share of GDP over the projection period.

Table 1-5 Projections for public spending on education (% of GDP) – baseline scenario

Country	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	Change 2004-2050
BE	5.6	5.6	5.2	5.0	4.9	4.9	5.0	5.1	5.0	5.0	5.0	-0.7
DK	7.8	7.7	7.5	7.6	7.5	7.3	7.3	7.5	7.6	7.6	7.5	-0.3
DE	4.0	4.0	3.6	3.3	3.2	3.2	3.3	3.3	3.3	3.2	3.2	-0.9
EL	3.5	3.4	3.1	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.1	-0.4
ES	3.7	3.6	3.2	3.1	3.2	3.1	3.0	2.9	2.9	3.0	3.1	-0.6
FR	5.0	4.9	4.7	4.6	4.6	4.6	4.5	4.5	4.5	4.5	4.5	-0.5
IE	4.1	4.0	3.5	3.5	3.4	3.4	3.2	3.0	3.0	3.0	3.1	-1.0
IT	4.3	4.2	3.9	3.8	3.7	3.6	3.5	3.5	3.6	3.7	3.7	-0.6
LU	3.3	3.2	3.1	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.4	-0.9
NL	4.8	4.8	4.7	4.7	4.6	4.5	4.6	4.7	4.7	4.7	4.6	-0.2
AT	5.1	5.0	4.6	4.3	4.1	4.1	4.2	4.2	4.2	4.1	4.1	-1.0
PT	5.1	5.0	4.7	4.6	4.7	4.6	4.5	4.4	4.5	4.6	4.8	-0.4
FI	6.0	6.0	5.6	5.4	5.3	5.3	5.4	5.4	5.3	5.3	5.3	-0.7
SE	7.3	7.3	6.7	6.5	6.4	6.4	6.6	6.6	6.6	6.5	6.4	-0.9
UK	4.6	4.5	4.2	4.0	4.0	4.0	4.1	4.1	4.0	3.9	4.0	-0.6
CY	6.3	6.2	5.1	4.3	4.0	4.1	4.3	4.4	4.2	4.0	4.0	-2.2
CZ	3.8	3.8	3.3	2.9	2.8	2.9	3.0	3.0	3.0	3.1	3.1	-0.7
EE	5.0	4.8	3.8	3.4	3.5	3.8	3.8	3.7	3.5	3.5	3.6	-1.3
HU	4.5	4.4	3.9	3.7	3.5	3.5	3.5	3.6	3.7	3.8	3.8	-0.7
LT	5.0	4.9	4.2	3.5	3.2	3.2	3.3	3.4	3.3	3.3	3.3	-1.6
LV	4.9	4.6	3.5	3.0	3.2	3.5	3.7	3.6	3.3	3.3	3.5	-1.4
MT	4.4	4.4	3.7	3.3	3.2	3.3	3.3	3.3	3.3	3.3	3.3	-1.2
PL	5.0	4.9	3.9	3.3	3.0	2.9	3.0	3.0	3.0	3.0	3.1	-1.9
SK	3.7	3.6	3.0	2.4	2.2	2.1	2.2	2.2	2.3	2.3	2.4	-1.3
SI	5.3	5.2	4.6	4.3	4.3	4.5	4.7	4.7	4.7	4.8	4.9	-0.4
EU25	4.6	4.5	4.2	4.0	3.9	3.9	3.9	3.9	3.9	3.9	4.0	-0.6
EU15	4.6	4.5	4.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	-0.6
EU12	4.4	4.4	4.0	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	-0.6
EU10	4.7	4.6	3.8	3.3	3.1	3.1	3.2	3.2	3.2	3.2	3.3	-1.3
EU9 (EU10-PL)	4.4	4.3	3.7	3.3	3.2	3.2	3.3	3.4	3.4	3.4	3.5	-0.9

Table 1-6 Projections for public spending on unemployment transfers (% of GDP) – baseline scenario

Country	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	Change 2004-2050
BE	2.3	2.2	2.0	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8	-0.5
DK	1.5	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	-0.3
DE	1.3	1.3	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	-0.4
GR	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-0.1
ES	1.1	1.1	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	-0.4
FR	1.2	1.2	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	-0.3
IE	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	-0.2
IT	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-0.1
LU	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	-0.1
NL	1.8	1.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	-0.2
AT	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	-0.1
PT	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-0.1
FI	1.5	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	-0.4
SE	1.1	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	-0.2
UK	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0
CY	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
CZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0
EE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
HU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0
LT	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	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-0.1
MT	1.2	1.2	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	-0.2
PL	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	-0.4
SK	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.2
SI	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-0.1
EU25	0.9	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	-0.3
EU15	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	-0.2
EU12	1.0	1.0	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	-0.3
EU10	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-0.2
EU9 (EU10-PL)	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-0.1

2. CHARACTERISTICS OF PENSION SYSTEMS IN THE EU MEMBER STATES

Table 2-1 Pension benefit formulation in the social security (public) pension schemes in Member States

(PR= private sector (main private sector scheme if different rules for sectoral schemes, PU=public sector where the schemes differ)

MS	Type of the scheme DB=defined -benefit DC=defined contribution	Pension base (reference wage) (thresholds, ceilings)	Indexation of past earnings (50:50=w:p)	Accrual of pensions	Max. accrual rate (gross replacement rate)	Number of years needed for a full pension	Stat. retire-ment age (M=men, W=women)	Other factors taken into account (early/deferred retirement; additional separate schemes; family conditions
BE	PR: DB	PR: Average of lifetime wages (up to ceiling), max 45 (women 44; 45 in 2009)	PR: to prices+ partial adjustment to welfare	PR: Service years/45 (women 44; 45 in 2009)	PR: 60%	45 (women 44; 45 in 2009)	65 M 64 W	75% for a married couple with one income; early retirement under condition between 60 and 65 or through "prepension" (unemployment benefit + supplement from the firm)
	PU: DB	PU: average wages of the last five years	PU: To prices + real wage increases in the corresponding civil servants scales	PU: Service years up to 45/60	PU: 100% of (service years)/60 (=75% of (service years)/45)	45	65	Early retirement between 60 and 65; age bonuses if retiring after the age of 60
CZ	DB	Earnings of 30 years (after 1986)	To average earnings	Flat-rate component + earnings-related component: 1.5%/year	No max	25	63M 61W, with 2 children	Age bonuses for later retirement and reductions for early retirement
DK	Flat-rate plus means-tested supplements			Based on years lived in DK	Flat-rate	40 lived in DK	65	A separate voluntary early retirement scheme (with a small own contribution). Supplemented by fully funded occupational pensions.
DE	DB	Pension points accrued during the whole work career	Implicitly to wages	Based on pension points (depends on the wage level relative to average wage and career length)	No ceiling defined,(in general, max 2 pension points		65	3.6% reduction per year for early retirement, 6.0% bonus per year for deferred retirement. Additional pension points granted for child

MS	Type of the scheme	Pension base	Indexation of past earnings	Accrual of pensions	Max. accrual rate	Number of years	Stat. retire-ment age	Other factors taken into account
					per year.)			raising and care of dependant persons
EE	DB	Length of career up to 1999, then contribution (earnings) points	(implicitly to wages)	Flat-rate component +contribution(earnings)-related component			63 M 59,5 W	Supplemented by a funded tier
GR	DB	PR: Average of best 5 years' wages out of last 10 years PU: Earnings of the last month; contributions paid up to a ceiling of wages	To civil servants' wages	Pre-1993: Non-linear formula, number of dependants taken into acc. (appr. 2% /year) Post 1993: 1.714% of wage	80 / 60% + 20%	37	IKA: insured bef. 1.1.1993: 65 M 60 W. after 1.1.1993: 65 M, W	80% for those being in the LM pre-1993 60% for those entering the LM after 1993; in addition, 20% auxiliary pension
ES	PR: DB PU: Flat-rate	PR: Average of last 15 years' wages PU: length of service	To prices (up to a ceiling)	15 years of contributions: 50% of pension rights; 3p.p. for each additional year until 25 years; thereafter, 2 p.p. for each additional year up to 35 years	PR: PU: flat-rate (5 cat.)	35	65	Bonuses for later retirement and reductions for early retirement
FR	DB	PR: Average of the best 25 years (to those born after 1948) PU: Last 6 months' wages	To prices	PR: 1.33%/year PU: 2%/year -> 1.875%/year	PR: 50 PU: 75	PR: 40 PU: 37.5 -> 40	60	Increases for children brought up; Supplemented by a mandatory partially funded scheme (second tier), private sector No supplement in public sector
IE	Social welfare: Flat-rate PU: DB	Contributions for years	No formal agreements. Government decisions each year in the Budget.		Social welfare: Flat-rate	PU: 40	65/66 depending on the scheme	Social insurance pensions may include additional payments in respect of adult and child dependants. PR: Supplemented by voluntary occupational pensions. PU: Public servants recruited after April 1995 will receive an integrated Social Security and public occupational pension.
IT	Old: DB New: NDC	Average of last 5/10 years' wages, progressively increasing Lifetime contributions	To prices To GDP	2% of reference wage per each year of contributions DG principle	80% NDC: none	40 NDC: none	65 M 60 W	 NDC: Higher transformation coefficient for women with children

MS	Type of the scheme	Pension base	Indexation of past earnings	Accrual of pensions	Max. accrual rate	Number of years	Stat. retire-ment age	Other factors taken into account
CY	PR: DB PU:	 Final salary	1.5% for e-r component	Flat-rate component + earnings-related component Tax-financed	60% of the average wage + supp. 67%	 33.3 years	61 M 60 W	Higher flat-rates for beneficiaries with dependants
LV	Old: DB New: NDC	Lifetime contributions	Prices + 50% of the real wage sum increase	DC principle	No max	No max	62 M 60 W (62 as of 1.7.2008)	Supplemented by a funded tier (2001); Early retirement actuarially reduced.
LT	DB	Contributions for 30 years		Flat-rate component +contribution(earnings)-related component			62,5 M 60 W	Age bonuses for later retirement and reductions for early retirement Supplemented by a funded tier (2004)
LU	DB	Average lifetime wages + career length	To prices plus the real wage growth	1.85% / year		40	After 40 years of working lifetime	Bonuses after 38 years of contributions and having turned 55 years' age; Early retirement possible after 57 years of age and 40 years of contributions, or after 60 years of age and 40 years of service.
HU	DB	Lifetime earnings since 1988	Net wages	Accrual of pension points weighted by earnings brackets (appr; 2%/year)			62 M 60 W	Bonuses for later retirement and reductions for early retirement Supplemented by a funded tier
MT	DB	Average of the best consecutive 3 years out of last 10 years		Contributions for 30 years, subject to a ceiling	67		61 M 60 W	
NL	Flat-rate			Based on years lived in NL	Flat-rate, 70% of net min. wage	40 lived in NL	65	100% net min; wage for couples A separate early retirement scheme Supplemented by occupational pensions
AT	DB	Average of best 15 years' wages, extended to 40 years' wages by 2028	Net wages	2%, to be lowered to 1.78 by 2009	80	45	65 (W: phased in by 2033)	Early/deferred retirement with reductions/increases of 4.5% / year
PL	Old: DB New: NDC	 Lifetime contributions + Calculation of initial capital,	 Wage sum	Old: Flat-rate component + contribution-rel. component New: DC principle			65 M 60 W	Old: To those born before 1.1.1949 Separate scheme for farmers Supplemented by a funded tier

MS	Type of the scheme	Pension base	Indexation of past earnings	Accrual of pensions	Max. accrual rate	Number of years	Stat. retire-ment age	Other factors taken into account
		based on career length						
PT	PR: DB PU: DB	PR: Average of best 10 years' wages out of last 15 years (old) Average of lifetime wages phased in 2002- PU: empl.pre-1993: Last wage	Wages	2%/year 2.5% -> 2.25 in 2013	80	40 36 -> 40	60,5	Reductions for early retirement Merged to general scheme as of 2006
SI	DB FDC for occupational pensions	Average of best 15 consecutive years' wages in 2005; thereafter, number of years to be raised to 18 by 2008	Net wages	2% /year until 1999; 1.5%/year as of 2000;	No max; 1.5%/year after 63m/ 61w	40 years at 63 for men; 38.5 years at 61 for women	58	Age bonuses for deferred retirement and reductions for early retirement (men 63/ women 61 years)
SK	DB	After 1994: average of lifetime earnings;	Implicitly assumed to wages	Accrual of pension points (depending on career length and earnings brackets; higher for the lowest earnings), subject to a ceiling	No max; in general, 50% after 40 years.	No max; a min. of 10 years for the eligibil.	62	Age bonuses for later retirement and reductions for early retirement Supplemented by a fully funded tier (2005)
FI	DB	Average of lifetime wages	80:20	1.5% / year up the age 52 1.9%/year between 53-62, 4.5%/year between 63-68	No max	No max	Flexible between 63-68	Early retirement possible at the age of 62 with a reduction of 7.2 % of the pension; Separate unemployment pension scheme to be phased out by 2014
SE	NDC	Lifetime contributions	Average wage growth	DC principle	No max	No max	Flexible, from 61 onwards	Supplemented by a funded tier
UK	Flat-rate	Men: 44 years' contributions Women: 39 years' contrib.;		Contributions scaled by wage brackets	Flat-rate		65 M 60 W	Supplemented by earnings-related State Second Pension, from which people can opt out to private schemes

Table 2-2 Some statistical indicators related to pensions

	Employment rate of older workers [1]		Average exit age from the labour market [1]		Gross replacement rate, public pensions [2]		Gross replacement rate, all pensions [2]		Net replacement rate, all pensions [2]	
	2001	2004	2001	2004	2005	2050	2005	2050	2005	2050
BE	25,1	30,0	56,8	59,4	39	37	43	47	67	74
CZ	37,1	42,7	58,9	60,0	61	53	61	53	79	70
DK	58,0	60,3	61,6	62,1	45	39	49	64	71	76
DE	37,9	41,8	60,6	61,3	43	34	43	48	63	67
EE	48,5	52,4	61,1	62,3	33	15	33	36	41	43
GR	38,2	39,4	59,3	59,5	105	94	105	94	115	106
ES	39,2	41,3	60,3	62,2	91	85	91	85	97	92
FR	31,9	37,3	58,1	58,9	66	49	66	49	80	63
IE	46,8	49,5	63,2	62,8	31	34	67	67	78	78
IT	28,0	30,5	59,8	61,0*	79	64	79	80	88	92
CY	49,1	49,9	62,3	62,7	46	57	46	57	52	70
LV	36,9	47,9	62,4	62,9	61	36	61	55	78	72
LT	38,9	47,1	58,9	60,8			31	42	41	50
LU	25,6	30,8	56,8	57,7	91	91	91	91	98	99
HU	23,5	31,1	57,6	60,5	66	58	66	77	102	98
MT	29,4	31,5	57,6	57,7	72	53	72	53	88	61
NL	39,6	45,2	60,9	61,1	30	30	71	69	92	90
AT	28,9	28,8	59,2	58,8*	64	69	64	69	80	94
PL	27,4	26,2	56,6	57,7	63	36	63	36	78	44
PT	50,2	50,3	61,9	62,2	75	70	75	70	91	92
SI	25,5	29,0	..	56,2*						
SK	22,4	26,8	57,5	58,5	49	50	49	50	63	64
FI	45,7	50,9	61,4	60,5	57	52	57	52	63	64
SE	66,7	69,1	61,8	62,8	53	40	68	56	71	57
UK	52,2	56,2	62,0	62,1	17	19	66	69	82	85
EU15	38,8	42,5	60,3	61,0						
EU12	35,2	38,6	59,9	60,7						
EU25	37,5	41,0	59,9	60,7						

* indicator for 2003

Sources: 1) Eurostat: Structural indicators database. Figures are calculated from Labour Force Surveys, based on yearly changes in the participation rates of the single-year age groups between 50 and 70 years.

2) European Commission (2006), Synthesis report on adequate and sustainable pensions (*forthcoming*), indicators calculated by the Indicators Sub-Group of the Social Protection Committee. The figures are calculated for a single (male) person with a career of 40 years full-time work at average earnings, contributing to the social security (first pillar, including statutory private pension scheme) and occupational (second pillar) pension schemes and retiring at the age of 65.

Table 2-3 Indexation and taxation regimes of the pension schemes

MS	Indexation of pension benefits	Taxation regimes
BE	Earnings-relate pensions are indexed to prices in the private sector scheme and to wages in civil servants' pensions Minimum guaranteed pensions are indexed to prices + discretionary targeted increases to welfare	
CZ	Decision is made by the government, but the minimum amount is guaranteed by the law. The minimum is set by the law and usually has represented an inflation growth (measured by the aggregate consumer price index) plus at least a third of the growth in real average wage.	Social benefits are not subject to personal income taxation except for pensions from the pension insurance scheme provided that the amount of pensions exceeds CZK 162,000 per year. Currently, out of 3.2 million pensions paid out, approximately only 3.2 thousand pensions exceed this limit.
DK	The public pensions (old-age, voluntary early retirement, disability and survivors' pensions) are indexed to average wage growth of the private sector.	Pension payments from all pillars are subject to personal income tax.
DE	The indexation of the pension point value depends on the increase of gross wages, the change of the contribution rate and the sustainability factor, which is based on the change of the employment/pensioner ratio.	Old pensions are not taxed; the 2002 reform changed the taxation regime from the TTE principle to the EET principle, indicating that the contributions and return on assets became tax-free while pension benefits will be taxed.. The taxable share of pensions is 50% in 2005 and increases by two percentage points per year for new pensioners until 2020, and after that by one percentage point per year, so that the whole pension will be taxable from retirement in 2040.
EE	State pension insurance, 50:50: Indexation depends with equal weights (50%-50%) on the increase of social tax revenues (wage sum) and the increase of consumer price index.	In principle, pensions are subject to income taxation but the threshold is set at such a level that, virtually, pensions are not taxed.
GR	Minimum pensions are indexed to wages, earnings-related pensions discretionary.	
ES	All pension benefits are indexed to expected inflation. If actual inflation is above the expected one, the difference is paid to all pensioners.	All pension benefits are taxed as labour income in general. Only certain disability pension benefits are tax-exempted. The average effective tax rate for pension income was about 5% in 2003.
FR	Private sector pensions are indexed to price inflation since 1993; the indexation of public sector pensions was aligned with that of private sector in 2003.	Subject to income tax but with favourable rules. Average tax rate applicable to pensioners was 3.8%.
IE	There is no formal indexing arrangement for the social welfare pensions system. Instead, pensions are increased each year by Government decisions, taking account of budgetary considerations.	Those aged 65 and over are treated more favourably under the Irish income tax code than the taxpayers in general. Tax is due on private and public sector occupational pensions as they become payable, with the exception of lump sum payments.
IT	Pensions are indexed to prices.	All pensions are taxed as labour-income, allowing for deductions that are phased out along increasing income level. Pension income below 7,500 Euro per year are tax-exempt (no tax-area).
CY	The basic (flat-rate) part of the pension is indexed to wages and the supplementary earnings-related part to prices.	Not taxed
LV	Annual adjustments are differentiated according to the amount of pension. Small pensions are indexed fully to CPI plus to 50% of the real growth of contribution wage sum. The medium pensions are indexed with CPI. The same rules for indexation are applied for all state pensions.	Pensions granted before 1996 are not subject to personal income taxation. Pensions granted from 1996 onwards are subject to taxation for the part exceeding 110 lats/month (165€).

MS	Indexation of pension benefits	Taxation regimes
LT	Currently, no automatic indexation but legal acts are adopted for each increase of pensions	Not taxed
LU	Pensions are automatically adjusted to price evolution each time prices increase by more than 2.5%. In addition, pensions are adjusted every two years to the real wage evolution. Whereas price indexation is automatic, the decision on indexing pensions to wage evolution is the responsibility of government and has to be approved by the parliament.	Taxation of pensions is identical with that of wages.
HU	Pensions (both the PAYG and funded part of the social security pensions) granted before 1 January are indexed by an index with weights of 50:50 to net wages and inflation.	Currently, pensions are not taxed. Taxation of pensions will be introduced in 2013.
MT	Pension benefits are linked to the Retail Price Index.	
NL	Public flat-rate pensions are linked to the minimum wage (70% of the legal minimum wage). Most occupational pension funds aim at wage or price indexation. It is, however, not guaranteed but conditional on the financial position of the fund (coverage ratio). Private pensions are indexed to productivity	Pension savings in the second pillar are taxed as personal income.
AT	Pension benefits are adjusted yearly by consumer price inflation as of 2006, (earlier to net wages).	Pension benefits are subject to personal income taxation
PL	Pensions (minimum pensions, the general old-age and farmers' pension schemes) are indexed to prices. .	Subject to personal income taxation.
PT	Pensions are indexed to prices plus to a real increase of 0.1 p.p. annually; minimum pensions are indexed to wages.	Subject to personal income taxation.
SI	The pensions are indexed with the rate of (net)wage growth of all employed persons as of 2006 (earlier less than 100%). The indexation takes place twice a year, in February and November.	Not taxed (except for a small part of higher pensions).
SK	Pensions are indexed 50:50 to wages and prices.	Not taxed
FI	*Earnings-related pensions* are indexed to an index with weights of 20:80 to wages and prices. Minimum guaranteed pensions are indexed to prices; discretionary increases by Budget laws	Minimum and earnings-related pensions are subject to income tax but a specific pension income deduction applies which makes all pensions up to the level of minimum pensions tax-free Private voluntary pensions are subject to capital income taxation with the flat-rate of 28% (in 2005)
SE	Minimum social security pensions are indexed to prices ; earnings-related pensions (both PAYG and funded part) are indexed to average wage growth. (However, the indexation is front-loaded so that 1.6 percentage point increase is given at the time of retirement, while later index adjustments are equal to the average wage growth minus 1.6 percentage points).	All pensions are subject to personal income tax.
UK	State pensions are indexed to prices. Occupational and private pensions in defined-benefit schemes are normally indexed by inflation or 2.5%, whichever is the lower. In a defined contribution scheme the accumulated fund continues to be managed with investment returns accumulating until the 'end' of the scheme.	Basic state pensions are not taxed. Also State Second Pensions mostly are below the threshold for the taxation.

Table 2-4 Contribution rates of public pension schemes

	Contribution rate, % of wages[1]	Observations[2]
BE	37.94% (social security) Employer: 24.87% Employee: 13.07% "Wage moderation" contribution: 7,48% Small additional social security contributions depend notably on the firm size; different measures lead to a marked reduction in the effective rates compared to the abovementioned rates.	The contribution rate covers all branches of social security, including health care, unemployment, disability, family allowances, and the general pension scheme for wage-earners and self employed. The contributions account for approximately two-third of the total social security revenues; specific social security taxes and transfers from the state budget account for the rest. Means-tested minimum pensions are financed by taxes. In order to finance the future increase in pension expenditure, the Belgian authorities plan to accumulate budgetary resources in a public "ageing fund" using the decrease in interest payments.
CZ	28.00% Employer: 21.50% Employee: 6.50%	The contribution rate covers both earning-related and flat-rate social security pensions. In 2004, the social security pension system was in balance for the first time since 1996.
DK		Public pensions are financed by taxes, with the exception of the voluntary early retirement scheme, to which there is a small own contribution. (Also the statutory supplementary schemes (ATP) are subsidised from tax revenues.)
DE	19.5% in 2004- 2006 Employer: *9.75%* Employee: *9.75%*	Subsidies from the Federal budget account for 27.5% of pension expenditure in 2004 (33% in 2003). In addition, social assistance pensions are financed by taxes. A target has been set that the contribution rate should not exceed 20% until 2020 and 22% until 2030.
EE	22% Employer: 16% to the I pillar scheme 4% to the III pillar scheme (or 20% to I pillar if the person has not joined the III pillar scheme) Employee: 2% to the III pillar scheme, only to those who have joined	Pension insurance contributions covered 94% of social security pensions in 2004. Special pensions to some groups of government officials (policemen, parliamentarians, judges) are financed from the government budget.
GR	20% (if insured before 31.12.92) Employer: 13.33% Employee: 6.67% 30% (if insured *betw. 1.1.93-31.12.2002*) Employer: 13.33% Employee: 6.67% State: 10.00% After 1.1.2003 Employer: 13.33% Employee: 6.67% State: 1% of GDP in 2003-2008 on aver. 1% of GDP in 2009-2032	Tax subsidies to the financing of contribution-based pensions would have to rise from the current 4.8% of GDP to 15.5% in 2050. In addition, pensions of uninsured persons over 65 and civil servants are financed by taxes. The current contribution rate is applied equally to all employees and covers only pension benefits.
ES	28.3% (social security, except health care and unemployment benefits) Employer: 23.6% Employee: 4.7%	The contribution rate covers contributory benefits for old-age, disability and survivors' pensions and maternity benefits. The social security sector is expected to produce a surplus until 2020, thereafter a deficit. Means-tested minimum pensions are financed by taxes.
FR	Basic scheme: Employer: 9.8% (below ceiling) **Employer: 1.6% (above the ceiling)** **Employee: 6.55% (below the ceiling)** Mandatory supplementary scheme: Rate varies between 7.5% - 20% (incl. employer and employee contributions), Depending on wage level and employee status	The contribution rate covers old-age and survivors' pensions; disability pensions are covered by health insurance contributions. The contribution rate will be raised by 0.2 percentage points in 2006. Further, employment measures are expected to reduce unemployment, which would allow to transfer unemployment contributions to pension financing.
IE	12.5 – 14.75%, excluding the health levy Employer: 8.5 – 10.75% Employee: 4%; self-employed: 3%	Social insurance (flat-rate) pensions are financed by contributions. In recent years, the Social Insurance Fund has been in surplus. Means-tested social assistance pensions are financed by taxes. In the future, due to the extension of the contributory scheme, there will be a shift from tax funding to contributions.
IT	32.7% Employer: 23.81% Employee: 8.89% The self-employed: Farmers: 20% Shopkeepers: 19% as of 2013 Artisans: 19% as of 2014	Contribution rate covers old age, survivors' and disability pensions of the social security scheme. Social assistance pensions and additional amounts due to social assistance purposes are financed by taxes (2.3% of GDP in 2003).

	Contribution rate, % of wages[1]	Observations[2]
CY	12.6% of wages	In addition, social (minimum flat-rate) pensions (8.5% of total pension expenditure) and civil servants' earnings-related pensions (27% of total pension expenditure) are financed from the state budget. The total contribution to social security for employees, covering sickness, maternity, unemployment, work injury and pensions, is 16.6%, of which employers pay 6.3%, employees 6.3% and the state budget 4.0%. The financing of pensions requires 12.6% of wages in total.
LV	25.51 % of the wage within the total social insurance contribution rate of 33.09% (of which the rate for employers is 24.09% and employees 9%) is needed to finance the old-age, survivors' and service pensions in 2004. However, the contribution for the calculation of the NDC pension is fixed at 20% (not separated between employer and employee) of which 2% goes to the funded scheme up to 2006, increased gradually to 10% by 2010, to persons participating in the funded scheme.	The total social insurance contribution covers old-age, survivors', service (during the transition period) and disability pensions, work injury, maternity, sickness and unemployment benefits and funeral benefits. The NDC pension contribution covers old-age pensions (including minimum pension and actuarial early retirement) and it is the basis for the calculation of survivors' pensions.
LT	26% Employer: 23.5% Employee: 2.5%	The pension contribution rate is further broken down by type of pension: (basic) old-age pension (10.5%), supplementary old-age pension (10.6%), disability and survivors' pensions (4.9%); In 2004, a private (2nd tier of the I pillar) scheme was introduced with a switch of a contribution rate at 2.5% (employee's part) to a private fund. This rate will be increased to 5.5% (2.5% by the employee + 3.0% from the employer's total contribution) by 2007. In 2004, the State Social Insurance Fund turned to be in surplus. State pensions to servicemen, policemen, meritorious persons, scientists, judges, casualties as well as social assistance pensions are financed from the state budget.
LU	24% Employer: 8% Employee: 8% State: 8%	One third of the contribution rate is financed by taxes. The guaranteed minimum income for old people and public sector employees' pensions are financed by taxes. Currently, the contribution rate allows accumulating the pension fund over its statutory requirement. The future development of the contribution rate depends heavily on the growth rate. Further, public sector pensions are financed form the State budget, 2.5% of GDP in 2004.
HU	26.5% Employer: 18% Employee: 8.5% (fully to the PAYG scheme, if not joined the 2nd tier of the I pillar; 0.5% to the PAYG scheme and 8.0% to the funded scheme when joined	Disability pensions and survivors' benefits (13% of all pension expenditure) are financed by health insurance contributions and transfers from the government budget. Social insurance fund required a subsidy of 23.6 of its total expenditure from the State budget (1.8% of GDP) in 2004. Also, supplementary means-tested allowances guaranteeing the minimum old-age income are financed by taxes (0.6% of GDP).
MT	30% Employer: 10% Employee: 10% State (tax revenues): 10% (with a substantial variation acc. to age and wage level of the employee) (Self-employed: 15% + state: 7.5%)	Covers all social insurance, including all pensions, short-term benefits, hospital, community and elderly care.
NL	17.9% (old-age pension) 1.25% (survivors' scheme) Employee: 19.15%	A target has been set to ensure that the old-age pension contribution rate will not be raised above 18.25%. The contribution rate of 17.9% is expected to produce a surplus until 2010. Thereafter, the deficit is covered from the reserve fund and taxes. In addition, a contribution rate of 1.25% is paid for the survivors' scheme and a rate of between 7.09-13.93% for disability benefit schemes.
AT	22.8% Employer: 12.55% Employee: 10.25% ; different rates in the civil service schemes without any ceilings	The contribution rate was harmonised for all groups in 2004; however, the rates paid by the self-employed (17.5%) and farmers (15%) are lower but subsidised up to 22.8% from general tax revenues. Furthermore, contributions are paid from tax revenues for periods of child care, military/civilian service, sickness benefits, maternity allowances and long-term care. There is a deficit guarantee for the statutory pension insurance to be covered from the Federal budget. In 2004, the government financing of the pension system accounted for 2.6% of GDP.

	Contribution rate, % of wages[1]	Observations[2]
PL	Total pension contribution: 32.52% of gross wage, of which: 19.52% (old-age pension) 13.00% (disability & survivors pensions) Paid by: employer: 16.26%, of which 9.56% (old-age) 6.50% (disability and survivors) employee: 16.26%, of which 9.56% (old-age) 6.50% (disability and survivors) (In addition: 0.97-3.86% (work injury; paid by employer) and 2.45% (sickness and maternity; paid by employee))	The earnings-related old-age pension contribution constitutes of a notional defined-contribution scheme (12.22%) and a pre-funded defined-contribution scheme (7.3%); these rates are to be kept constant in the future. The outflow of the funded contributions creates a financing gap in the PAYG Social Insurance scheme – in 2004 it was 1.2% of GDP, while the total subsidy for the financing of pensions amounted to 3.8% of GDP. Disability and survivors' pensions are financed from separate contribution (13.0%). Farmers' old-age and disability pensions are financed up to 90% of the pension payments from state budget subsidies (1.7% of GDP in 2004). Furthermore, minimum pension guarantee (topping-up a small pension from earnings related pension system) as well as contributions during selected career breaks (maternity and parental leave, periods out of work due to the care of a disabled child, unemployment benefit period) are financed by taxes (or other public sources).
PT	34.75% (contributory cash benefits) Employer: 23.75% Employee: 11%	The contribution rate covers all contributory benefits (pensions, sickness, unemployment, maternity, professional deceases, family benefits). Means-tested universal non-contributory social pension and other benefits are financed by taxes (3.3% of GDP in 2000). The social security sector currently produces a surplus of 1.7% of GDP, projected to turn into a deficit of 1.5% of GDP by 2050.
SI	24.35% Employer: 8.85% Employee: 15.50%	The contribution rate covers old-age, survivors' pensions, disability pensions and health insurance contributions for retired persons. The public pension scheme is subsidised by state budget for the difference between contributions collected and the actual payment of the pensions concerned. It is currently in surplus (0.1% of GDP in 2005) but, without reforms, would fall into a deficit about2010, increasing to 10% of GDP in 2050 under current policies and activity rates.
SK	24% in 2005; Employer: 17%, of which 14% to old-age scheme 3% to disability scheme Employee: 7%; of which 4.0% to old-age scheme 3.0% to disability scheme	In addition, employers pay a contribution of 4.75% of wages into the Reserve Solidarity Fund. A mandatory funded pension scheme was introduced in 2005. For those, who join the scheme, half of the old-age pension contribution (9%) is passed on to personal accounts of private funds. This introduction of the mandatory funded pension scheme is estimated to result in a deficit in the financing of the social security pensions by 1.3% of GDP as of 2006.
FI	Earnings-related pensions in 2005: Employer: 16.8% (private sector) 18.9% (state sector) 23.4% (municipalities) Employee: 4.8% National basic pensions: Employer: 2.3% (private sector)	The earnings-related pension contribution for the private sector (21.6%) is estimated to rise by about 7 percentage points (taking account of the 2005 reforms). Means-tested (against pension income) national basic pensions and the pensions of sea-farers, self-employed persons and farmers are partially financed by taxes; the subsidy totalling to 1.7% of GDP in 2004.
SE	18.5% (old-age pension) Employer: 10.21% Employee: 7% Note that the contributions add up to 17.21% only because the contribution paid by the employee (7%) is deducted from the income of which contributions are defined. 1.7% (survivors' scheme)	The earnings-related pension system is a notional defined-contribution system (16%) and a pre-funded defined-contribution system (2.5%); these rates are to be kept constant in the future. Income guarantee pensions (means-tested against public pensions), disability and survivors' pensions and contributions during career breaks are financed by taxes.
UK	19.85% (social security except health); in 2005 Employer: 10.9% in 2005 Employee: 8.95% in 2005 (Class 1 contribution rates; for those not contracted out, earnings between the primary threshold and the upper earnings limit for employees)	The contribution rate covers the basic state pension and the additional earnings-related pension (SERPS/State Second Pension) as well as disability and widow's benefits, contributory jobseeker's allowance, maternity and guardian allowances, redundancy payments. Means-tested Minimum Income Guarantee/Pension Credit benefits and civil servants' pensions are financed by taxes. The contribution rates to private pension schemes vary considerably: in 2004, in open funds 9-17% and in closed funds 7-21% of wages.

1 Source: National Strategy Reports 2005; European Commission, MISSOC and Ageing Working Group update in 2005. The rates apply to the general, first-pillar social protection schemes. In many Member States, there are floors or ceilings for earnings which are subject to contributions. Rates may also be different for the self-employed.

2 The observations are based on the information given in the 2005 national strategy reports and by the Ageing Working Group.

Table 2-5 Pension expenditure projection models in the Member States

Country	Name and owner organisation of the model	Type of the model	Base data on pensions	Modelling issues and other observations
BE	The Maltese System (Model for analysis of long term evolution of social expenditure) Federal Planning Bureau	Deterministic macrosimulation model. Detailed sub-models for each social security scheme as for demographic and socio-demographic projections	Administrative and national account data	Occupational pensions – no Modelling the whole social security system
CZ	Pension model Ministry of Finance	Semi-aggregated simulation model; GAMS	Pension data of 2003 by age cohorts and sexes; data on inflows and outflows of pensioners	All pension benefits under social security system modelled.
DK	All public pensions covered Ministry of Finance		Public pension expenditure with the breakdown to public old-age (flat-rate), means-tested supplements and civil servants' pensions according to 2004 National account statistics.	Assumes a constant share of population by gender, age and origin on public pensions with corrections for reforms (e.g. a lower statutory retirement age) and changes in the labour force participation rates.
DE	Pension projection model Ministry of Health and Social Security	Two sub-models: (1) the demographic pension model (cohort model) and (2) the financial pension model (a partial equilibrium model)	Pension data of 2004 by age cohort and sex; data on inflows and outflows of pensioners.	Occupational pensions: no
EE	Pension model Ministry of Finance	Macrosimulation model	Administrative data of National Pension Insurance Fund	Additional assumptions**:** -wage structure by age and gender (to calculate the earnings-related pension expenditure) -structure of different pensioners (according to changes in legislation) -structure of wages of switchers to the II pillar
GR	Projection Models for different funds National Actuarial Authority		In most part, the data used were submitted by the pension funds (IKA etc.) directly to the National Actuarial Authority	Separate models for different funds require also that the total population is divided into sub-populations of the funds IKA is the largest social insurance organization in the country, covering approximately half of the labour force and pensioners The technical approach is focussed on modelling employees' and employers' contributions and the provision of pensions. The outcome of the projection produces a cash-flow pattern.

Country	Name and owner organisation of the model	Type of the model	Base data on pensions	Modelling issues and other observations
ES	Four projection models for a) social security old-age and early pensions; b) social security disability pensions; c) social security survivors' pensions; d) public sector (CPE) pensions	Deterministic, partial equilibrium model	Social security administration data and Ministry of Economy and Finance data	The whole social security pension system is covered by the model; Occupational and private pensions not modelled.
FR	Ministry of Health and Solidarity associated by Ministry of Finance and the French pension policy council (COR)	Partial equilibrium model, supported by the results of a microsimulation model for the private sector pensions, run by CNAVTS (national pension fund for salaries workers)		Occupational pensions: no
IE	Model for social insurance and assistance pensions Ministry of Social and Family affairs A separate model for public sector employees' pensions Ministry of Finance	Partial equilibrium model		Private sector occupational pensions: no
IT	RGS pension model, Ministry of Economy and Finance, Department of General Accounts	macrosimulation model based on a dynamic, multi-state approach involving a large number of 'state' variables	Social security system database	Numbers enrolled in the pension system are projected according to the level of disaggregation provided by the 'state' variables 'monetary' variables (pension amount, wages) are projected in terms of their mean value associated to each possible "positions" within the system Takes migration flows into account
CY	PROST (the World Bank model)			
LV	Social Insurance Budget Model Ministry of Welfare Social security schemes (public and private tiers) Complementary calculations on special service pensions (artists,	Microsimulation model	Pension data from the State Social Insurance Agency	

Country	Name and owner organisation of the model	Type of the model	Base data on pensions	Modelling issues and other observations
	workers in international affairs etc.)			
LT	The State Social Insurance pension system together with the I and II tier of the I pillar: PRISM Ministry of Social Security and Labour Social security schemes (public and private tiers)	Pension Reform Illustration and Simulation Model, semi aggregated	Pension data from state social insurance institutions	The program methodology based on the 'average person' parameter modelling. The number of the recipients of the State pensions and the projections of the pension size were estimated by using the model which was created specially for this purpose and based on Excel program
LU	General Inspection Authority of Social security (IGSS)	Sequential approach, transition probabilities	Pension data from the National Social Insurance Institution	Basic dimensions of the model are age, sex, and country of origin. Additional dimensions allow differentiate between employment statuses (blue collar, white collar, civil servants) and the pension type (old-age, early old-age, disability, survivor).
HU	Ministry of Finance Social security pensions (public and private tiers)	Deterministic semi-aggregated microsimulation model		Age-specific exit probabilities and average benefit levels are calculated from developments observed in the past and corrected in line with movements in labour supply and effects of legislative changes. Basic unit of calculation: group of pensioners of the same age, sex and with the same type of benefit
MT	PROST (the World Bank model); used by the Economic Policy Division of the Ministry of finance	The World Bank's reform option simulation model	Base year 2002	
NL	Separate models for social security schemes (MOSI), occupational pensions (EXPLOT) and occupational early retirement pensions (PVK) Central Planning Bureau	First pillar - An OLG-General Equilibrium model Second Pillar - model of a single average pension fund		The three pillars that form the pension system are treated separately. GDP slightly higher than assumed by the AWG
AT	Two independent models: Private sector and public sector Bundesministerium fur Financen	Static microsimulation model		

Country	Name and owner organisation of the model	Type of the model	Base data on pensions	Modelling issues and other observations
PL	FUS04 model Social Insurance Institution (ZUS)	Multiple decrement cohort-component actuarial model		Separate models for 1) (ZUS) the general scheme (old-age and disability pensions) 2) Pre-retirement pensions 3) (KRUS) farmers pensions 4) Security provision pensions (armed forces, police, etc.)
PT	ModpensPor Model Private sector social security schemes Ministry of Labour and Social Solidarity Civil serants pension schemes Ministry of Finance	Partial equilibrium model	Base year 2004	Runs aggregate projections on variables such as contributions, unemployment benefits, sick leave benefits and maternity benefits, as well as micro-level projections (based on individual profiles) on pensions and family benefits.
SI	Institute for Economic Research, Ministry of Finance	Generational accounting model Dynamic overlapping-generations general equilibrium model .	Administrative data of the Pension Insurance Institute	Overlapping Generations: 5 year intervals, 1, 2, 5 or 10 different household groups. Sectoral disaggregation: 2 – 30 sectors. Social security module, Government, taxes.
SK	PROST Ministry of Finance	The World Bank's reform option toolkit, a semi-aggregated simulation model	Age and sex-specific data from Social Insurance Agency and the Ministry of Finance	Inputs: All AWG assumptions (age specific for each year); - Earnings profiles from National Statistical Office - Number of contributors, beneficiaries, coverage rate (age specific) - Number of pensions as a percent of population - linked with participation rates and unemployment rates - New pension defined by average replacement rate - Number of switchers from pure PAYG to mixed system
FI	Model for national (minimum) pensions; Social Insurance Institution Model for earning-related social security pensions; Finnish Centre for Pensions	Deterministic state model	Administrative data of the institutions, covering also longitudional data on careers, wages, pension accruals etc.	
SE	SESIM Ministry of Finance	Dynamic microsimulation model	The start year is 1999 and the initial sample is approximately 100 000 individuals.	The base population used in SESIM is formed by a random draw of 104 000 individuals from LINDA (longitudional database of administrative data). To this sample 8 000 individuals have been added from the National Social Insurance Board register for pensions rights (oversees residents with Swedish pension rights).

Country	Name and owner organisation of the model	Type of the model	Base data on pensions	Modelling issues and other observations
UK	Government Actuary's Department (GAD) responsible for the part of the pension projections relating to the National Insurance Fund. In 2004 HM Treasury commissioned GAD to produce public service pension projections. Department for Work and Pensions (DWP) produces the Pension Credits and *other types of benefits ?*	Basic retirement pension ? Pensions Credit - static microsimulation model Public service pensions ?		Occupational schemes: no Separate models for different pension schemes (Basic state pensions, state second pension, public sector employees, disability benefits)

Table 2-6 Main features of recent pension reforms

Country	Main features of the reforms implemented
BE 2003	The standard retirement age for women will increase gradually from age 63 in 2003 to 64 in 2006 and will be 65 in 2009 in the general schemes for wage-earners and self-employed. Early-retirement (seniority pension) is still possible, but the required contribution period has been increased from 32 years in 2003 to 35 years in 2005. Also, the "older workers' unemployment scheme" has been recently reformed and is under discussion for further reforms.
CZ 2003	Before the pension reform in 2003, men retired at the age of 60 and women at 53-57, depending on the number of children (one year less per child). Since January 2004, the age of retirement is increased constantly over time (2 months per year for men and 4 months per year for women) to reach 63 years for men and 59-63 for women (still depending on the number of children) in 2013. The so-called "temporarily reduced pension", an early retirement scheme, has been abolished, while the so-called "permanently reduced pension" scheme (allowing early retirement up to three years before the normal retirement age) is still in place but with a stronger reduction of the pension benefit (0.9% for each 90 calendar days from the statutory retirement age).
DK 2003 2004	In 2003, eligibility to disability pensions was redefined so that, instead of defining the disability degree, the work ability degree is defined. Persons with some work ability are directed to subsidised jobs (and if unemployed, to special unemployment benefit) instead of granting a disability pension. As of 1 July 2004, the statutory retirement age is 65 instead of 67. At the same time, the voluntary early retirement pension was made less attractive with the aim of increasing the effective retirement age.
DE 1992-2001 2002, 2004	An increase of the statutory retirement age to 65 was legislated in 1992. The transition period of the increase of the statutory retirement age was fastened several times (1996, 1999, 2001 and 2004) will be completed by 2012 for those born in 1952 or later. The statutory retirement age for women and the unemployed will rise from 60 to 65 by 2011. For those born in 1952 or later, early retirement will be possible at the age of 62 with the condition of at least 35 years of contribution. In addition, pensions are reduced by 3.6% per year in the case of early retirement, while a bonus of 6% per year is granted for deferred retirement. The reduction for disability pensions before the age of 62 is up to a maximum of 10.8%. The 2001 reform aimed at promoting the development of supplementary pension schemes whilst reducing slightly the target replacement ratio in the social security scheme. The 2004 old-age pension insurance Sustainability Act introduced a sustainability factor in the pension indexation formula. This requires maintaining the set quantitative ratio between the numbers of beneficiaries and contributors (dependency ratio). This sustainability factor led to no index adjustments in pensions in 2004 and 2005. Time spent in school and university will no longer be counted as years worked. The possibility of leaving the labour market at the age of 58 while receiving unemployment benefits until pension retirement (so-called 58er regulation) will be abolished in 2008.
EE 2001	Changes in the PAYG system include rising the retirement age for female to 63 by 2016 and revising the benefit formula. Legislation passed in mid-September 2001 set up mandatory individual accounts for the funded tier, allowing to switch a part of the statutory social security pension into private pension funds. Since 2002, over half the labour force has joined funded schemes.
ES 2002-2005	The mandatory retirement age (65) was abolished, while the accrual of pension rights after 65 was increased by 2%/year and the contributions abolished. Early retirement is discouraged by the reduction of contributions rates (50% at the age of 60, increasing by 10 p.p. by each additional year) and made possible only from the age 61 provided that contributions have been paid at least during 30 years and the person has been unemployed at least 6 months. Moreover, the pension is reduced by 6.0-8.0%/year, depending on the number of contribution years. Pensions have also been made compatible with part-time work; the pension benefit is reduced according to the length of the working day.
FR 2004	The main measures of the reform implemented as of 2004 include a prolongation of the contribution period for a full pension from 37.5 to 40 years for public sector employees and a

Country	Main features of the reforms implemented
	further increase to 41 years for all employees between 2009 and 2012 and to 41.75 in 2020. Thereafter, further gains in life expectancy (at 60) will prolong the contribution period by 2/3 of the increase in life expectancy. Moreover, retirement was made more flexible but bonus/malus adjustments will be applied to deferred/earlier retirement. In the case of postponement, the bonus is 3% per year. As of 2006, the amount of the penalty ("la décote"; applied if retired before 40 years of contributions) will decrease gradually from 10% to 5% of pension per year of anticipation in 2015 for the private sector and will increase from 0.5% to 5% for civil servants). Furthermore, pensions were indexed to prices only and the contribution rate will be increased by 0.2 of a percentage point as of 2006.
IE 1999	The National Pension Reserve fund was established in 1999 with the aim of pre-funding in part the future Exchequer cost of social welfare and public service pensions. A statutory obligation has been placed on the Government to pay a sum equivalent to 1% of GNP from the Exchequer into the fund each year until at least 2055.
2000	A series of significant tax incentives have been introduced for the purpose of promoting pension provision amongst the self-employed, employers in non-pensionable employment and proprietary directors. These incentives aim at encouraging individuals to plan for the pension provision early on in their careers.
2003	Personal Retirement Savings Accounts which seek to promote supplementary pension coverage were introduced. Reforms of the public pension system implemented to date have allowed for the raising of the minimum pension age and the removal of a compulsory retirement age for most public servants. A cost-neutral early retirement scheme with actuarially reduced benefits has been introduced.
IT 2004	As of 2008, regardless the regime (earnings-related, mixed, contribution-defined), the take-up of early pensions will be tightened. To take-up a pension at an age lower than 65 for men (60 for women) is allowed only to those with 40 or more years of contributions or to those with 35 years of contributions and the age of 60 for the employed (61 for the self-employed), instead of the flexible age range 57-65 before the reform. Further, the age limits will be raised by one year in 2010 and 2014, thus reaching 62 for the employed and 63 for the self-employed. A further postponement of pension is envisaged with respect to the moment at which the requirements are met through the so-called 'exit windows' (finestre). During the period 2008-2015, the take-up of seniority pensions for those having met the requirements of the legislation before 2004 (at least 35 years of contributions and the age of 57 for the employed / 58 for the self-employed) is limited to women who accept the pension calculation according to a less favourable contribution method. During the period 2004-2007, those employed in the private sector and having satisfied the requirements for a seniority pension may opt for a different regime providing: i) an additional pay corresponding to the whole pension contribution (32.7% of gross wages), ii) the total tax exemption of this additional income and iii) pension amount calculated according to the contribution years matured at the date of the option and indexed to inflation for the period until old-age retirement.
HU	The standard retirement age for women will increase to 60 by 2005, 61 by 2007 and 62 by 2009 (before the reform it was 57).
1997	A funded tier was introduced in 1997, allowing to transfer a 8% contribution (26.5% of the total social security pension contribution) into private pension funds. This funded tier is mandatory to all new entrants to the labour market. In 2005, already 62% of the labou rforce have joined funded schemes.
LV 1996	The Latvian social security pension system was reformed into a notional defined-contribution scheme in 1996 and complemented with the introduction of a funded tier in 2001, allowing to transfer a part of the contribution into private pension fund; the contribution is currently 2% but to be raised to 10% (50% of the total contribution) by 2010. Furthermore, the standard age requirement for women (60.5 years until July 2006) will increase by 6 months each year to reach 62 by 2008. Those for men reached 62 in 2003. Early retirement up to two years before the standard retirement age remains possible until July 2008.
LT 1995	The standard minimum retirement age for women (55 years in 1995, 58.5 years in 2003) will increase by 6 months each year to reach 60 years in 2006. The retirement age for men was gradually increased (2 months per year) from 60 years in 1995 up to 62.5 in 2003.
2004	A funded tier was introduced in 2004, allowing transfer a part of the statutory social security

Country	Main features of the reforms implemented
	pension contribution (to raise to 5.5% in 2007) into private pension funds. The switch is voluntary to all.
NL 2006	Decisions have been taken to reduce the incentives for the take-up of early retirement pensions (VUT), mainly via the reduction of the favourable tax treatment of such pensions.
AT 2003, 2004	The minimum retirement age for men will increase from 61.5 years to 65 years; for women the age will rise from 56.5 to 60 years. The increase will be phased in gradually beginning in July 2004 and by 2017 early retirement will be eliminated. The statutory retirement age for women will be increased gradually between 2019 and 2034 to reach the retirement age for men at 65. The 2003 reform abolished early retirement schemes and linked benefits more closely to contributions. The 2004 reform introduced significant improvements for the financial sustainability of the pension system via a better transparency between contributions and benefits; bonus/malus adjustments (4.2%/year) are applied for deferred/earlier retirement and a longer contribution period (45 years) is required for a full pension (80%) at the age of 65. Also, a switch to the price indexation of pensions as of 2006 has already been decided. Furthermore, an alignment between different sectoral schemes has been undertaken. From January 2005, harmonised guaranteed pension accounts will be established (Act on the harmonisation of pension system, approved in November 2004). In the new system, individual, transparent pension accounts will be kept to report of benefits accrued from contributions paid in and other credits acquired, such as from active child and elderly care.
PL 1999	The Polish general social security pension system was reformed into a notional defined-contribution scheme in 1999, with the introduction of a funded tier at the same time, allowing to transfer a part of the contribution (7.3%) into private pension funds. The switch is mandatory to persons born after 1969. Those born before 1948 remain in the old defined-benefit scheme. Persons born 1949-1968 could choose whether they joint the NDC scheme or split the contributions between NDC and fully funded scheme. Farmers are not included in the reformed NDC scheme. The standard retirement age remains 65 for male and 60 for female. There will be no early pension for those born after 1948 and retiring after 2006.
PT 2002 2005	The general social security pension scheme was reformed in 2002, changing the calculation rules of pensions to be based on lifetime earnings (max. 40 years) instead of the best 10 years over the last 15 years' wages, however, being phased in over a long transition period. The 2005 reform aligned the public sector employees' pensions with the general pension scheme (previously aligned only to those who had entered the labour market after 1993), raising the statutory retirement age from 60 in 2005 to 65 by 2015, raising the length of the contribution period required for a full pension from 36 to 40 by 2013 and applying bonus/malus adjustments for deferred/earlier retirements.
SK 2004	The standard retirement age will increase from 60 to 62 for men (9 month per year) by 2007 and from the former 57 (reduced by 1 year per child , to reach age 53) to 62 for women by 2016. A worker can still retire earlier if the combined benefit from the first and the newly introduced second pillar equal at least 60% of the minimum living standard determined by the government. In this case, the pension is reduced by 6% per year while a bonus of 6% is introduced for those postponing retirement. It is also possible to get pension benefit while working. A funded tier was introduced in 2005, which is mandatory to the new entrants to the labour market, allowing transfer half the statutory social security pension contribution (9) into private pension funds.
SI 2000	The standard retirement age has been increased. It is now possible to retire between 58 and 63 for men and 61 for women (the minimum retirement age was 53 for women and 58 for men before the reform). Women that worked before the age of 18 can retire earlier (but not before the age of 55). Special regulations reduce the age of retirement to 55 in certain cases (before the reform it was possible even below 50). The minimum retirement age is raised from 53 to 58 for women (the same as for men). The accrual rate was reduced from 2% to 1.5% since 2000. Later retirement has been encouraged: a person who fulfils the requirement for pension but continues to work beyond the age 63/61 will receive an additional pension increase (3.6% the first additional year, 2.4% the second year and 1.2% in the third, plus the normal rate of accrual, 1.5% per year).

Country	Main features of the reforms implemented
	The indexation of pensions has varied from year to year. During the period of 2000-2004, it was 50% to wages and in 2005 80% to wages. Prices were taken in to account only when the result of the indexation was below the price increase in 2001-2005. As of 2006, it will be fully to wages. A new supplementary pre-funded pension insurance was introduced. It is mandatory for early pension in heavy and unhealthy work and voluntary for collectively agreed pension insurance.
FI 2003-2005	The 2003-2005 revisions of the pension scheme aim to raise the effective retirement age (by 2 years by 2025) by removing the unemployment pension scheme (between 2009-2014) and removing the individual disability (early retirement) scheme whilst allowing flexible retirement between 63-68 years and an early retirement at the age of 62. The accrual rate is increased to 4.5% for those continuing to work beyond the age of 63 (previously 2.5% for those working beyond 60) and an actuarial reduction of 0.6% per month is applied to those retiring prior to 63. The ceiling on the maximum pension is abolished. Pension benefits are calculated on the basis of life-time earnings. Also, a life expectancy coefficient will be implemented in the system as of 2009, adjusting future old-age and survivors' benefits to the increase in life expectancy.
SE 1998	Under the new notional defined contribution system is possible to retire from age 61 onwards, with an actuarially fair compensation for those who stay on in the labour force. Every year of contributions is important for the pension benefit. A person with an average wage will increase his yearly pension benefit by nearly 60 per cent if he postpones his retirement decision till age 67 compared to leaving at age 61. Yearly "statement of account" informs the individual of costs and benefits of retirement. The new system is phased in gradually for generations born between 1938 and 1953, and will affect generations born after 1953 fully.
UK 2002-2003	Between 2010 and 2020, women's pensionable age will gradually rise from 60 to 65, as for men. In 2002, the State Second Pension was introduced (replacing the earlier State Earnings-related Pension), resulting in time in higher benefits. In 2003, the Pension Credit was introduced, increasing income-related benefits to people over 60. Also, the basic State pension has been increased more than what the statutory indexation rule (with prices) requires.

3. DETAILED RESULTS OF THE PENSION PROJECTIONS – SENSITIVITY TESTS

Table 3-1 High life expectancy scenario: gross public pension expenditure as a share of GDP between 2004 and 2050

Public pensions, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,5	11,1	12,2	13,6	14,8	16,1	16,1	4,4	1,2	5,7
CZ	8,5	8,2	8,2	8,5	8,9	9,6	12,4	14,4	1,2	4,8	5,9
DK	9,5	10,1	10,8	11,4	12,1	13,0	13,9	13,4	3,6	0,4	4,0
DE	11,4	10,5	10,5	11,0	11,7	12,4	12,9	13,3	1,0	1,0	2,0
EE	6,7	6,8	6,0	5,4	5,1	4,8	4,4	4,3	-1,9	-0,5	-2,4
GR											
ES	8,6	8,9	8,8	9,3	10,4	11,9	15,2	15,8	3,3	3,9	7,2
FR	12,8	13,0	13,2	13,8	14,2	14,6	15,4	15,4	1,7	0,8	2,6
IE	4,7	5,2	5,9	6,5	7,3	8,0	9,5	11,5	3,2	3,5	6,7
IT	14,2	14,0	13,9	14,1	14,5	15,2	16,1	14,9	0,9	-0,2	0,7
CY											
LV	6,8	4,9	4,7	4,9	5,4	5,7	6,0	5,7	-1,1	0,1	-1,1
LT	7,2	6,8	6,9	7,4	8,0	8,5	8,9	9,5	1,3	1,0	2,3
LU											
HU	10,4	11,0	11,4	12,4	12,8	13,2	15,7	16,8	2,8	3,6	6,4
MT	7,5	9,0	10,1	10,6	10,5	9,6	8,4	7,6	2,1	-2,1	0,1
NL	7,7	7,6	8,4	9,0	9,9	10,8	12,0	11,7	3,1	0,9	4,0
AT	13,4	12,9	12,7	12,9	13,7	14,2	13,8	12,6	0,8	-1,5	-0,8
PL	13,9	11,3	9,8	9,7	9,5	9,2	8,8	8,2	-4,6	-1,1	-5,7
PT	11,1	11,9	12,7	14,2	15,1	16,2	19,2	21,4	5,1	5,3	10,3
SI	10,9	10,9	11,4	12,2	13,2	14,4	17,0	18,8	3,5	4,4	7,9
SK	7,2	6,7	6,6	7,0	7,4	7,8	8,5	9,4	0,6	1,6	2,2
FI	10,7	11,2	12,1	12,9	13,6	14,1	14,0	13,9	3,4	-0,2	3,3
SE	10,6	10,1	10,3	10,5	10,8	11,2	11,8	11,6	0,6	0,4	1,0
UK	6,6	6,7	6,8	6,9	7,4	8,0	8,5	8,8	1,4	0,8	2,2
EU15 [1)]	10,6	10,4	10,5	10,9	11,5	12,2	13,1	13,2	1,6	1,0	2,6
EU10 [1)]	11,0	9,9	9,2	9,5	9,7	9,8	10,6	11,1	-1,2	1,2	0,1
EU12 [1)]	11,5	11,3	11,4	11,9	12,6	13,3	14,4	14,4	1,8	1,1	2,9
EU25 [1)]	10,6	10,3	10,4	10,8	11,4	12,0	13,0	13,0	1,4	1,0	2,4

1) excluding countries which have not provided data

Table 3-2 High life expectancy scenario: gross total pension expenditure as a share of GDP between 2004 and 2050

Total pension expenditure, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,5	11,1	12,2	13,6	14,8	16,1	16,1	4,4	1,2	5,7
CZ	8,5	8,2	8,2	8,5	8,9	9,6	12,4	14,4	1,2	4,8	5,9
DK											
DE	11,4	10,5	10,5	11,0	11,7	12,4	12,9	13,3	1,0	1,0	2,0
EE	6,7	6,8	6,0	5,6	5,4	5,3	5,7	6,7	-1,3	1,4	0,0
GR											
ES	8,6	8,9	8,8	9,3	10,4	11,9	15,2	15,8	3,3	3,9	7,2
FR	12,8	13,0	13,2	13,8	14,2	14,6	15,4	15,4	1,7	0,8	2,6
IE											
IT	14,2	14,0	13,9	14,1	14,5	15,2	16,1	14,9	0,9	-0,2	0,7
CY											
LV	6,8	4,9	4,7	5,0	5,6	6,1	7,2	8,4	-0,7	2,4	1,6
LT	7,2	6,8	6,9	7,5	8,2	8,8	9,8	11,3	1,7	2,4	4,1
LU											
HU	10,4	11,0	11,5	12,5	13,1	13,7	17,4	20,0	3,3	6,2	9,6
MT	7,5	9,0	10,1	10,6	10,5	9,6	8,4	7,6	2,1	-2,1	0,1
NL	12,4	12,3	13,5	14,8	16,5	18,5	21,1	20,7	6,1	2,2	8,3
AT	13,4	12,9	12,7	12,9	13,7	14,2	13,8	12,6	0,8	-1,5	-0,8
PL	13,9	11,3	9,8	9,8	9,7	9,5	9,4	9,5	-4,4	0,0	-4,4
PT	11,1	11,9	12,7	14,2	15,1	16,2	19,2	21,4	5,1	5,3	10,3
SI	10,9	10,9	11,4	12,2	13,2	14,4	17,0	18,8	3,5	4,4	7,9
SK	7,2	6,7	6,7	7,3	7,9	8,5	9,9	11,7	1,3	3,2	4,5
FI	10,7	11,2	12,1	12,9	13,6	14,1	14,0	13,9	3,4	-0,2	3,3
SE	12,9	12,5	12,8	13,0	13,4	14,1	14,8	14,2	1,1	0,1	1,3
UK											
EU15 [1)]	12,0	11,7	11,9	12,4	13,1	14,0	15,2	15,1	2,0	1,1	3,1
EU10 [1)]	11,0	9,9	9,3	9,6	9,8	10,1	11,4	12,5	-0,9	2,4	1,5
EU12 [1)]	12,0	11,7	11,9	12,4	13,1	14,0	15,2	15,2	2,0	1,2	3,2
EU25 [1)]	12,0	11,6	11,7	12,2	12,9	13,7	14,9	14,9	1,7	1,3	3,0

1) excluding countries which have not provided data

Table 3-3 High life expectancy scenario: total assets in pension schemes as a share of GDP between 2004 and 2050

All pensions, assets as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	4,4	7,4	13,5	16,2	12,9	0,5			-4,0		
CZ	0,3	3,4	6,5	9,1	9,7	7,2			6,9		
DK											
DE	0,1	0,4	0,8								
EE	2,8	9,4	15,9	26,0	38,4	51,3	77,4	100,8	48,5	49,5	98,0
GR											
ES											
FR	1,2	2,0	2,9	4,0	3,5	2,8	1,5		1,6		
IE											
IT											
CY											
LV	0,3	12,9	25,9	38,0	48,2	57,3	68,0	70,2	57,0	12,8	69,8
LT	0,3	4,3	8,7	14,2	21,1	28,5	42,5	54,2	28,2	25,8	53,9
LU											
HU	4,0	13,2	21,9	31,4	40,9	49,7	67,2	72,7	45,7	23,0	68,7
MT											
NL	135,5	161,0	178,3	197,0	217,5	235,9	251,4	257,4	100,4	21,4	121,8
AT											
PL	7,1	15,9	24,1	33,5	42,7	51,3	70,5	86,5	44,2	35,2	79,5
PT	4,3	4,0									
SI											
SK		7,0	12,8	19,0	25,2	31,7	46,2	59,1	31,7	27,4	59,1
FI	52,4	59,3	63,1	66,1	68,3	70,1	71,3	72,6	17,7	2,6	20,2
SE	38,6	53,2	60,2	65,3	68,7	71,1	66,1	57,9	32,4	-13,1	19,3
UK											

Table 3-4 High life expectancy scenario: contributions to public pension schemes as a share of public pensions

Public pensions, contributions / gross pensions									Change	Change	Change
Country	**2004**	**2010**	**2015**	**2020**	**2025**	**2030**	**2040**	**2050**	**2004-2030**	**2030-2050**	**2004-2050**
BE											
CZ	105	108	108	104	98	91	71	61	-14	-30	-44
DK											
DE	68	69	66	68	67	68	69	68	0	1	0
EE	98	97	109	118	124	130	137	143	32	12	44
GR											
ES											
FR	100	99	97	93	91	88	84	84	-12	-5	-16
IE	76	65	57	51	46	42	35	29	-34	-13	-47
IT	72	74	75	74	72	68	65	71	-4	3	0
CY											
LV	104	124	124	115	103	96	90	95	-8	-2	-9
LT	94	94	91	83	75	71	69	65	-23	-6	-29
LU											
HU	74	61	58	53	51	50	43	40	-25	-10	-34
MT	95	76	64	56	51	50	47	44	-45	-6	-51
NL	88	84	77	71	66	60	56	57	-28	-3	-31
AT	67	71	71	69	64	61	62	68	-6	7	1
PL	55	70	82	83	84	87	92	98	32	12	43
PT	95	88	78	68	63	58	48	43	-37	-15	-51
SI	85	92	91	88	83	77	67	61	-8	-16	-24
SK	90	75	74	68	63	60	54	47	-30	-13	-43
FI	85	81	81	80	80	80	81	82	-6	2	-4
SE											
UK	87	89	90	89	84	79	74	71	-8	-7	-15
EU15 [1)]	81	82	80	79	76	73	71	71	-7	-2	-9
EU10 [1)]	71	77	83	80	78	77	72	69	6	-8	-2
EU12 [1)]	80	81	79	77	75	73	70	71	-7	-1	-8
EU25 [1)]	80	81	80	79	76	74	71	71	-6	-3	-9

1) excluding countries which have not provided information

Table 3-5 Higher employment rate scenario: gross public pension expenditure as a share of GDP between 2004 and 2050

Public pensions, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,0	12,0	13,3	14,5	15,6	15,4	4,1	0,9	4,9
CZ	8,5	8,2	8,1	8,3	8,8	9,4	12,0	13,8	0,9	4,4	5,3
DK	9,5	10,1	10,8	11,3	12,0	12,8	13,5	12,8	3,3	0,0	3,3
DE	11,4	10,4	10,4	10,9	11,5	12,2	12,7	13,0	0,8	0,8	1,7
EE	6,6	6,8	5,9	5,4	5,1	4,7	4,4	4,2	-1,9	-0,5	-2,4
GR											
ES	8,6	8,9	8,8	9,3	10,3	11,8	15,1	15,6	3,2	3,8	7,1
FR	12,8	12,9	13,1	13,6	13,9	14,2	14,9	14,7	1,4	0,5	1,9
IE	4,7	5,2	5,9	6,5	7,2	7,8	9,3	11,1	3,1	3,2	6,3
IT	14,2	13,9	13,7	13,9	14,3	14,9	15,8	14,7	0,7	-0,3	0,4
CY	6,9	7,9	8,8	9,8	10,8	12,1	14,9	19,7	5,2	7,6	12,8
LV	6,8	4,9	4,6	4,9	5,3	5,6	5,9	5,6	-1,2	-0,1	-1,3
LT	7,0	6,6	6,6	7,0	7,6	7,9	8,2	8,6	1,0	0,6	1,6
LU											
HU	10,4	11,0	11,3	12,2	12,7	13,0	15,4	16,4	2,6	3,4	6,0
MT	7,4	8,7	9,7	10,1	9,9	9,1	7,8	7,0	1,6	-2,1	-0,5
NL	7,7	7,6	8,3	8,9	9,7	10,6	11,6	11,1	2,9	0,5	3,4
AT	13,4	12,8	12,6	12,7	13,4	13,8	13,2	12,0	0,4	-1,8	-1,4
PL	13,9	11,3	9,7	9,6	9,4	9,1	8,5	7,9	-4,9	-1,2	-6,1
PT	11,1	11,8	12,5	14,0	14,9	15,8	18,7	20,6	4,8	4,8	9,5
SI	11,0	11,0	11,4	12,1	13,0	14,1	16,4	17,8	3,1	3,8	6,9
SK	7,2	6,7	6,5	6,9	7,3	7,6	8,2	8,9	0,4	1,3	1,7
FI	10,7	11,2	11,9	12,8	13,5	13,9	13,8	13,8	3,3	-0,2	3,1
SE	10,6	10,1	10,2	10,3	10,6	11,0	11,5	11,2	0,4	0,2	0,6
UK	6,6	6,6	6,7	6,8	7,2	7,8	8,3	8,5	1,2	0,7	1,9
EU15 [1)]	10,6	10,3	10,4	10,7	11,3	12,0	12,8	12,8	1,4	0,8	2,2
EU10 [1)]	10,9	9,8	9,1	9,4	9,5	9,7	10,4	10,9	-1,2	1,2	0,0
EU12 [1)]	11,5	11,2	11,3	11,7	12,4	13,1	14,1	14,0	1,5	0,9	2,5
EU25 [1)]	10,6	10,3	10,3	10,7	11,2	11,8	12,7	12,7	1,2	0,8	2,0

1) excluding countries which have not provided data

Table 3-6 Higher employment rate scenario: gross total pension expenditure as a share of GDP between 2004 and 2050

Total pension expenditure, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,0	12,0	13,3	14,5	15,6	15,4	4,1	0,9	4,9
CZ	8,5	8,2	8,1	8,3	8,8	9,4	12,0	13,8	0,9	4,4	5,3
DK											
DE	11,4	10,4	10,4	10,9	11,5	12,2	12,7	13,0	0,8	0,8	1,7
EE	6,6	6,8	6,0	5,6	5,4	5,3	5,6	6,6	-1,4	1,3	-0,1
GR											
ES	8,6	8,9	8,8	9,3	10,3	11,8	15,1	15,6	3,2	3,8	7,1
FR	12,8	12,9	13,1	13,6	13,9	14,2	14,9	14,7	1,4	0,5	1,9
IE											
IT	14,2	13,9	13,7	13,9	14,3	14,9	15,8	14,7	0,7	-0,3	0,4
CY	6,9	7,9	8,8	9,8	10,8	12,1	14,9	19,7	5,2	7,6	12,8
LV	6,8	4,9	4,6	5,0	5,5	6,0	7,0	8,2	-0,8	2,2	1,4
LT	7,0	6,6	6,6	7,1	7,8	8,3	9,2	10,4	1,4	2,1	3,4
LU											
HU	10,4	11,0	11,3	12,3	12,9	13,5	17,0	19,5	3,1	6,0	9,1
MT	7,4	8,7	9,7	10,1	9,9	9,1	7,8	7,0	1,6	-2,1	-0,5
NL	12,4	12,3	13,5	14,7	16,3	18,3	20,5	19,9	5,9	1,6	7,5
AT	13,4	12,8	12,6	12,7	13,4	13,8	13,2	12,0	0,4	-1,8	-1,4
PL	13,9	11,3	9,7	9,7	9,6	9,3	9,2	9,2	-4,6	-0,2	-4,8
PT	11,1	11,8	12,5	14,0	14,9	15,8	18,7	20,6	4,8	4,8	9,5
SI	11,0	11,0	11,4	12,1	13,0	14,1	16,4	17,8	3,1	3,8	6,9
SK	7,2	6,7	6,6	7,2	7,7	8,3	9,6	11,2	1,1	2,9	4,0
FI	10,7	11,2	11,9	12,8	13,5	13,9	13,8	13,8	3,3	-0,2	3,1
SE	12,9	12,4	12,7	12,9	13,3	13,8	14,4	13,8	0,9	-0,1	0,8
UK											
EU15 [1)]	12,0	11,7	11,8	12,3	13,0	13,7	14,8	14,7	1,7	0,9	2,7
EU10 [1)]	10,9	9,8	9,1	9,5	9,7	10,0	11,2	12,3	-1,0	2,4	1,4
EU12 [1)]	12,0	11,7	11,8	12,3	12,9	13,7	14,9	14,7	1,8	1,0	2,7
EU25 [1)]	11,9	11,6	11,6	12,1	12,7	13,4	14,5	14,5	1,5	1,1	2,5

1) excluding countries which have not provided data

Table 3-7 Higher employment rate scenario: total assets in pension schemes as a share of GDP between 2004 and 2050

All pensions, assets as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	4,4	7,3	13,5	16,5	13,9	2,5			-1,9		
CZ	0,3	3,5	7,0	10,3	11,7	10,5			10,2		
DK											
DE	0,1	0,4	0,8								
EE	2,8	9,3	15,9	26,6	39,4	52,7	80,2	105,5	49,9	52,8	102,7
GR											
ES											
FR	1,2	2,0	2,9	4,0	3,4	2,8	1,5	0,0	1,6	-2,8	-1,2
IE											
IT											
CY	39,3	40,0	40,5	39,0	34,4	26,2	2,7		-13,1		
LV	0,3	13,0	26,0	38,1	48,4	57,6	69,0	71,8	57,3	14,2	71,4
LT	0,3	4,3	8,6	14,0	20,8	28,1	41,6	52,9	27,7	24,8	52,6
LU											
HU	4,0	13,2	21,9	31,5	41,0	49,9	67,6	73,7	45,9	23,8	69,7
MT											
NL	135,5	160,1	176,3	194,4	213,6	229,7	241,5	244,7	94,1	15,0	109,2
AT											
PL	7,1	15,9	24,1	33,5	42,5	51,0	69,6	84,5	44,0	33,5	77,5
PT	4,3	4,4	0,3								
SI											
SK		7,0	12,8	19,0	25,2	31,6	45,9	58,3	31,6	26,6	58,3
FI	52,4	59,3	62,9	66,0	68,4	70,3	71,8	73,5	17,9	3,2	21,1
SE	38,6	53,1	60,3	65,8	69,4	72,1	68,1	61,4	33,5	-10,8	22,8
UK											

Table 3-8 Higher employment rate scenario: contributions to public pension schemes as a share of public pensions

Public pensions, contributions / gross pensions									Change	Change	Change
Country	**2004**	**2010**	**2015**	**2020**	**2025**	**2030**	**2040**	**2050**	**2004-2030**	**2030-2050**	**2004-2050**
BE											
CZ	105	108	109	106	100	93	73	64	-11	-30	-41
DK											
DE	68	69	66	67	68	68	68	68	0	0	0
EE	98	97	110	119	126	133	140	143	34	10	44
GR											
ES											
FR	100	100	98	95	92	90	87	88	-9	-3	-12
IE	76	65	57	52	47	43	36	30	-34	-12	-46
IT	72	74	75	75	73	69	66	73	-3	4	1
CY	80	82	80	73	67	60	49	36	-21	-24	-45
LV	104	124	125	116	104	97	92	98	-7	1	-6
LT	97	96	94	87	78	75	75	72	-22	-4	-26
LU											
HU	74	62	59	54	52	50	44	41	-24	-9	-33
MT	96	77	66	58	54	53	51	48	-43	-5	-47
NL	88	84	78	72	67	62	58	60	-26	-2	-28
AT	67	71	72	70	65	63	65	71	-4	9	5
PL	55	70	82	83	84	87	93	100	32	13	45
PT	95	88	79	69	64	59	49	45	-35	-14	-50
SI	85	92	92	87	82	76	65	59	-9	-17	-25
SK	90	76	76	69	65	62	57	50	-28	-12	-40
FI	85	81	82	81	80	80	82	82	-5	2	-3
SE	72	74	72	71	69	67	63	65	-6	-2	-8
UK	87	90	92	91	86	81	77	74	-6	-7	-13
EU15 [1)]	80	82	81	79	77	74	72	73	-6	-2	-8
EU10 [1)]	71	78	83	81	79	77	72	68	6	-9	-3
EU12 [1)]	80	81	79	78	76	74	71	73	-6	-1	-7
EU25 [1)]	80	82	81	79	77	75	72	72	-5	-2	-7

1) excluding countries which have not provided data

Table 3-9 Higher employment rate of older workers scenario: gross public pension expenditure as a share of GDP between 2004 and 2050

Public pensions, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,0	11,9	13,2	14,4	15,5	15,3	4,0	0,9	4,9
CZ	8,5	8,2	8,1	8,3	8,8	9,4	11,9	13,7	0,9	4,3	5,2
DK	9,5	10,0	10,6	11,1	11,6	12,4	13,1	12,5	3,0	0,0	3,0
DE	11,4	10,4	10,5	10,9	11,5	12,2	12,7	13,0	0,8	0,9	1,7
EE	7,4	7,6	6,7	6,0	5,6	5,2	4,8	4,6	-2,2	-0,6	-2,8
GR											
ES	8,6	8,8	8,8	9,2	10,3	11,7	15,0	15,6	3,1	3,8	7,0
FR	12,8	12,8	12,9	13,3	13,6	13,9	14,6	14,4	1,1	0,5	1,6
IE	4,7	5,2	5,9	6,5	7,2	7,8	9,3	11,0	3,1	3,2	6,3
IT	14,2	13,9	13,7	13,8	14,2	14,9	16,0	14,8	0,7	-0,1	0,6
CY											
LV	6,8	4,9	4,6	4,9	5,3	5,6	5,9	5,5	-1,2	-0,1	-1,3
LT	7,0	6,6	6,5	7,0	7,5	7,9	8,1	8,5	0,9	0,6	1,5
LU											
HU	10,4	10,9	11,2	11,9	12,3	12,7	15,0	16,0	2,3	3,3	5,6
MT	7,4	8,8	9,7	10,2	10,0	9,1	7,9	7,1	1,7	-2,1	-0,4
NL	7,7	7,6	8,3	8,9	9,6	10,6	11,6	11,1	2,8	0,6	3,4
AT	13,4	12,8	12,6	12,6	13,2	13,6	13,1	11,8	0,2	-1,8	-1,6
PL	13,9	11,3	9,7	9,7	9,5	9,2	8,6	8,0	-4,7	-1,2	-5,9
PT	11,1	11,9	12,6	14,0	14,8	15,8	18,6	20,5	4,7	4,7	9,5
SI	11,0	11,0	11,2	11,8	12,6	13,6	15,9	17,4	2,6	3,8	6,4
SK	7,2	6,7	6,5	6,9	7,3	7,6	8,2	9,0	0,4	1,4	1,8
FI	10,7	11,1	11,8	12,6	13,2	13,7	13,6	13,5	3,0	-0,2	2,8
SE											
UK	6,6	6,6	6,7	6,8	7,2	7,8	8,3	8,5	1,2	0,7	1,9
EU15 [1)]	10,6	10,3	10,4	10,7	11,2	11,9	12,8	12,8	1,3	0,8	2,2
EU10 [1)]	11,0	9,8	9,1	9,4	9,5	9,6	10,2	10,6	-1,4	1,0	-0,4
EU12 [1)]	11,5	11,2	11,3	11,7	12,3	13,0	14,0	14,0	1,4	1,0	2,4
EU25 [1)]	10,6	10,3	10,3	10,6	11,1	11,8	12,7	12,6	1,2	0,9	2,0

1) excluding countries which have not provided data

Table 3-10 Higher employment rate of older workers scenario: gross total pension expenditure as a share of GDP between 2004 and 2050

Total pension expenditure, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,0	11,9	13,2	14,4	15,5	15,3	4,0	0,9	4,9
CZ	8,5	8,2	8,1	8,3	8,8	9,4	11,9	13,7	0,9	4,3	5,2
DK											
DE	11,4	10,4	10,5	10,9	11,5	12,2	12,7	13,0	0,8	0,9	1,7
EE	7,4	7,6	6,7	6,2	6,0	5,8	6,1	6,9	-1,6	1,2	-0,5
GR											
ES	8,6	8,8	8,8	9,2	10,3	11,7	15,0	15,6	3,1	3,8	7,0
FR	12,8	12,8	12,9	13,3	13,6	13,9	14,6	14,4	1,1	0,5	1,6
IE											
IT	14,2	13,9	13,7	13,8	14,2	14,9	16,0	14,8	0,7	-0,1	0,6
CY											
LV	6,8	4,9	4,6	5,0	5,5	6,0	7,0	8,2	-0,8	2,2	1,4
LT	7,0	6,6	6,6	7,1	7,8	8,3	9,2	10,2	1,4	1,9	3,3
LU											
HU	10,4	10,9	11,2	12,0	12,6	13,2	16,6	19,0	2,8	5,8	8,6
MT	7,4	8,8	9,7	10,2	10,0	9,1	7,9	7,1	1,7	-2,1	-0,4
NL	12,4	12,3	13,5	14,7	16,3	18,3	20,6	19,9	5,9	1,6	7,6
AT	13,4	12,8	12,6	12,6	13,2	13,6	13,1	11,8	0,2	-1,8	-1,6
PL	13,9	11,3	9,8	9,8	9,7	9,4	9,3	9,3	-4,4	-0,1	-4,6
PT	11,1	11,9	12,6	14,0	14,8	15,8	18,6	20,5	4,7	4,7	9,5
SI	11,0	11,0	11,2	11,8	12,6	13,6	15,9	17,4	2,6	3,8	6,4
SK	7,2	6,7	6,6	7,1	7,7	8,3	9,6	11,3	1,1	3,0	4,1
FI	10,7	11,1	11,8	12,6	13,2	13,7	13,6	13,5	3,0	-0,2	2,8
SE											
UK											
EU15 [1)]	12,0	11,6	11,8	12,2	12,8	13,6	14,8	14,7	1,7	1,0	2,7
EU10 [1)]	11,0	9,8	9,2	9,4	9,7	9,9	11,0	12,0	-1,1	2,2	1,0
EU12 [1)]	12,0	11,6	11,8	12,2	12,8	13,6	14,8	14,7	1,7	1,0	2,7
EU25 [1)]	11,9	11,5	11,6	12,0	12,6	13,3	14,5	14,4	1,4	1,1	2,5

1) excluding countries which have not provided data

Table 3-11 Higher employment rate of older workers scenario: total assets in pension schemes as a share of GDP between 2004 and 2050

All pensions, assets as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	4,4	7,3	13,5	16,5	14,1	3,1			-1,4		
CZ	0,3	3,5	6,9	10,0	11,4	10,2			9,9		
DK											
DE	0,1	0,4	0,8								
EE	2,8	9,3	15,8	25,8	38,1	51,2	78,0	102,6	48,4	51,4	99,8
GR											
ES											
FR	1,2	2,0	2,9	4,0	3,4	2,8	1,5	0,0	1,6	-2,8	-1,2
IE											
IT											
CY	39,3	42,1	44,0	42,6	35,0	17,3			-22,0		
LV	0,3	12,9	25,9	37,8	47,9	57,0	68,2	70,7	56,7	13,7	70,3
LT	0,3	4,3	8,6	14,0	20,7	27,9	41,4	52,5	27,6	24,6	52,2
LU											
HU	4,0	13,2	21,8	31,2	40,6	49,2	66,6	73,0	45,3	23,8	69,0
MT											
NL	135,5	160,3	176,9	194,6	213,4	229,7	241,7	244,3	94,2	14,6	108,8
AT											
PL	7,1	16,1	24,4	33,9	43,1	51,8	70,4	85,1	44,7	33,4	78,0
PT	4,3	4,0									
SI											
SK		7,0	12,7	18,9	25,1	31,5	45,7	58,1	31,5	26,6	58,1
FI	52,4	59,0	62,5	65,1	67,1	68,9	70,2	71,6	16,5	2,7	19,2
SE											
UK											

Table 3-12 Higher employment rate of older workers scenario: contributions to public pension schemes as a share of public pensions

Public pensions, contributions / gross pensions									Change	Change	Change
Country	**2004**	**2010**	**2015**	**2020**	**2025**	**2030**	**2040**	**2050**	**2004-2030**	**2030-2050**	**2004-2050**
BE											
CZ	105	108	109	106	100	94	74	64	-11	-30	-41
DK											
DE	68	70	66	67	67	68	68	68	0	0	0
EE	88	86	97	106	112	118	125	129	30	11	41
GR											
ES											
FR	100	100	99	96	95	93	88	89	-7	-3	-11
IE	76	65	57	52	47	43	36	30	-34	-12	-46
IT	72	74	76	75	74	69	66	72	-2	2	0
CY											
LV	104	124	125	115	104	97	91	97	-7	1	-7
LT	97	96	95	87	78	76	75	72	-22	-3	-25
LU											
HU	74	62	60	55	53	52	45	42	-22	-10	-32
MT	96	77	66	58	54	53	51	48	-43	-5	-48
NL	88	84	78	72	67	62	58	60	-26	-2	-28
AT	67	71	72	70	66	63	65	73	-3	9	6
PL	55	71	83	84	85	87	93	100	32	13	45
PT	95	88	78	69	64	59	49	45	-35	-14	-50
SI	85	92	93	90	85	79	67	61	-6	-18	-23
SK	90	76	76	70	65	62	57	49	-28	-13	-41
FI	85	81	81	81	80	80	82	82	-5	2	-3
SE											
UK	87	90	92	91	86	81	76	74	-6	-7	-13
EU15 [1)]	81	82	81	80	78	75	72	73	-5	-2	-7
EU10 [1)]	71	78	84	82	80	79	74	71	8	-8	0
EU12 [1)]	80	81	79	78	76	74	72	73	-5	-1	-6
EU25 [1)]	80	82	81	80	78	75	73	73	-5	-2	-7

1) excluding countries which have not provided data

Table 3-13 Higher labour productivity scenario: gross public pension expenditure as a share of GDP between 2004 and 2050

Public pensions, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,1	12,1	13,3	14,5	15,4	15,2	4,1	0,7	4,7
CZ	8,5	8,2	8,1	8,3	8,7	9,3	11,9	13,7	0,9	4,3	5,2
DK	9,5	10,1	10,8	11,3	12,0	12,8	13,5	12,8	3,3	0,0	3,3
DE	11,4	10,5	10,5	11,0	11,6	12,3	12,8	13,1	0,9	0,8	1,7
EE	6,7	6,8	5,9	5,3	5,0	4,6	4,2	4,0	-2,1	-0,6	-2,7
GR											
ES	8,6	8,9	8,7	9,1	10,1	11,5	14,5	14,8	2,9	3,4	6,3
FR	12,8	13,0	13,1	13,5	13,8	14,0	14,6	14,4	1,2	0,4	1,6
IE	4,7	5,2	5,9	6,5	7,3	7,9	9,4	11,2	3,2	3,3	6,4
IT	14,2	14,0	13,7	13,7	14,0	14,6	15,4	14,1	0,4	-0,5	-0,1
CY	6,9	8,0	8,8	9,7	10,6	11,7	14,1	18,4	4,9	6,6	11,5
LV	6,8	4,9	4,6	4,8	5,3	5,5	5,8	5,4	-1,3	-0,1	-1,4
LT	7,0	6,6	6,6	7,0	7,6	7,9	8,1	8,5	1,0	0,6	1,5
LU	10,0	9,8	10,8	11,8	13,6	14,9	16,9	17,3	4,9	2,4	7,3
HU	10,4	11,1	11,5	12,4	12,8	13,2	15,7	16,7	2,8	3,5	6,3
MT	7,5	8,8	9,7	10,1	9,7	8,8	7,4	6,4	1,3	-2,4	-1,1
NL	7,7	7,7	8,3	9,0	9,7	10,7	11,6	11,2	2,9	0,5	3,4
AT	13,4	12,8	12,6	12,6	13,2	13,5	12,8	11,4	0,2	-2,1	-1,9
PL	13,9	11,3	9,7	9,5	9,2	8,9	8,2	7,6	-5,0	-1,3	-6,3
PT	11,1	11,9	12,5	13,9	14,6	15,4	17,9	19,6	4,3	4,1	8,5
SI	11,0	11,1	11,5	12,3	13,2	14,3	16,7	18,1	3,3	3,8	7,2
SK	7,2	6,7	6,5	6,9	7,3	7,6	8,1	8,8	0,4	1,2	1,6
FI	10,7	11,2	12,0	12,7	13,3	13,6	13,4	13,3	3,0	-0,3	2,6
SE	10,6	10,1	10,3	10,3	10,6	10,9	11,4	11,0	0,3	0,1	0,4
UK	6,6	6,6	6,7	6,7	7,1	7,7	8,0	8,2	1,0	0,6	1,6
EU15 [1)]	10,6	10,4	10,4	10,7	11,2	11,9	12,6	12,5	1,3	0,7	1,9
EU10 [1)]	10,9	9,8	9,2	9,4	9,5	9,6	10,3	10,8	-1,3	1,2	-0,1
EU12 [1)]	11,5	11,3	11,3	11,7	12,3	13,0	13,9	13,8	1,4	0,8	2,2
EU25 [1)]	10,6	10,3	10,3	10,6	11,1	11,7	12,5	12,4	1,1	0,7	1,8

1) excluding Greece

Table 3-14 Higher labour productivity scenario: gross total pension expenditure as a share of GDP between 2004 and 2050

Total pension expenditure, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,1	12,1	13,3	14,5	15,4	15,2	4,1	0,7	4,7
CZ	8,5	8,2	8,1	8,3	8,7	9,3	11,9	13,6	0,9	4,3	5,2
DK											
DE	11,4	10,5	10,5	11,0	11,6	12,3	12,8	13,1	0,9	0,8	1,7
EE	6,7	6,8	5,9	5,5	5,3	5,1	5,4	6,2	-1,5	1,1	-0,5
GR											
ES	8,6	8,9	8,7	9,1	10,1	11,5	14,5	14,8	2,9	3,4	6,3
FR	12,8	13,0	13,1	13,5	13,8	14,0	14,6	14,4	1,2	0,4	1,6
IE											
IT	14,2	14,0	13,7	13,7	14,0	14,6	15,4	14,1	0,4	-0,5	-0,1
CY	6,9	8,0	8,8	9,7	10,6	11,7	14,1	18,4	4,9	6,6	11,5
LV	6,8	4,9	4,6	4,9	5,5	5,9	6,9	8,0	-0,9	2,1	1,2
LT	7,0	6,6	6,6	7,1	7,8	8,3	9,1	10,3	1,4	2,0	3,3
LU	10,0	9,8	10,8	11,8	13,6	14,9	16,9	17,3	4,9	2,4	7,3
HU	10,4	11,1	11,5	12,5	13,1	13,7	17,2	19,6	3,3	6,0	9,2
MT	7,5	8,8	9,7	10,1	9,7	8,8	7,4	6,4	1,3	-2,4	-1,1
NL	12,4	12,3	13,6	14,7	16,3	18,2	20,4	19,6	5,9	1,4	7,3
AT	13,4	12,8	12,6	12,6	13,2	13,5	12,8	11,4	0,2	-2,1	-1,9
PL	13,9	11,3	9,7	9,6	9,4	9,1	8,9	8,8	-4,8	-0,3	-5,1
PT	11,1	11,9	12,5	13,9	14,6	15,4	17,9	19,6	4,3	4,1	8,5
SI	11,0	11,1	11,5	12,3	13,2	14,3	16,7	18,1	3,3	3,8	7,2
SK	7,2	6,7	6,7	7,2	7,7	8,3	9,5	10,9	1,1	2,7	3,7
FI	10,7	11,2	12,0	12,7	13,3	13,6	13,4	13,3	3,0	-0,3	2,6
SE	12,9	12,4	12,7	12,8	13,1	13,7	14,1	13,5	0,7	-0,2	0,5
UK											
EU15 [1)]	12,0	11,7	11,8	12,3	12,9	13,6	14,6	14,4	1,6	0,8	2,4
EU10 [1)]	10,9	9,8	9,2	9,4	9,7	9,9	11,0	12,1	-1,0	2,2	1,2
EU12 [1)]	12,0	11,7	11,8	12,2	12,9	13,6	14,6	14,4	1,6	0,8	2,5
EU25 [1)]	11,9	11,6	11,6	12,0	12,6	13,3	14,3	14,2	1,3	0,9	2,3

1) excluding countries which have not provided data

Table 3-15 Higher labour productivity scenario: total assets in pension schemes as a share of GDP between 2004 and 2050

All pensions, assets as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	4,4	7,3	13,4	16,2	13,5	2,4			-2,1		
CZ	0,3	3,4	6,7	9,8	11,2	10,1			9,8		
DK											
DE	0,1	0,4	0,8								
EE	2,9	9,3	15,7	25,8	38,3	51,3	77,9	102,3	48,4	51,0	99,4
GR	:	:	:	:	:	:	:	:			
ES											
FR	1,2	2,0	2,9	4,0	3,4	2,8	1,5	0,0	1,6	-2,8	-1,2
IE											
IT											
CY	39,3	39,5	39,1	36,8	32,1	24,2	3,4		-15,1		
LV	0,3	12,9	25,8	37,8	47,9	56,9	68,1	71,4	56,5	14,5	71,0
LT	0,3	4,3	8,6	14,0	20,8	28,1	41,6	53,0	27,8	24,9	52,7
LU	23,6	31,6	37,2	38,9	32,4	17,4			-6,3		
HU	4,0	13,2	21,8	31,0	40,2	48,6	65,2	70,5	44,6	22,0	66,6
MT											
NL	135,5	160,5	176,1	192,2	210,1	225,4	236,3	239,3	89,9	13,9	103,7
AT											
PL	7,1	15,8	23,8	32,7	41,3	49,2	66,5	80,4	42,1	31,2	73,4
PT	4,3	4,0									
SI											
SK		7,0	12,7	18,7	24,6	30,8	44,2	55,8	30,8	25,0	55,8
FI	52,4	59,3	62,5	64,6	66,1	67,2	67,6	68,4	14,8	1,2	16,0
SE	38,6	53,4	60,2	65,0	68,1	70,3	65,9	59,3	31,7	-11,1	20,7
UK											

Table 3-16 Higher labour productivity scenario: contributions to public pension schemes as a share of public pensions

Public pensions, contributions / gross pensions									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE											
CZ	105	108	109	106	101	94	74	64	-11	-30	-41
DK											
DE	68	69	66	67	67	68	68	68	0	0	0
EE	98	97	109	120	127	135	144	149	36	14	50
GR											
ES											
FR	100	99	98	95	93	92	88	90	-8	-2	-10
IE	76	65	57	52	46	42	36	30	-34	-12	-46
IT	72	74	76	76	74	70	68	75	-1	5	4
CY	80	80	78	73	67	61	51	38	-20	-22	-42
LV	104	124	125	117	105	98	93	100	-5	1	-4
LT	97	96	94	87	78	76	75	73	-22	-3	-25
LU	99	102	93	86	74	67	59	58	-31	-9	-41
HU	74	61	58	53	51	50	43	40	-25	-10	-34
MT	96	77	66	58	53	52	50	47	-44	-5	-48
NL	88	84	77	71	66	61	57	59	-27	-2	-29
AT	67	71	73	72	68	65	68	76	-2	11	9
PL	55	70	82	84	86	89	96	104	34	15	49
PT	95	88	78	69	65	60	51	47	-34	-13	-47
SI	85	91	90	86	80	74	63	58	-10	-16	-27
SK	90	75	75	69	65	62	57	50	-28	-12	-40
FI	85	81	81	81	80	80	82	83	-5	3	-2
SE	72	74	72	72	70	67	64	66	-5	-1	-6
UK	87	90	92	92	88	82	78	75	-5	-7	-11
EU15 [1)]	80	82	81	80	78	75	73	74	-5	-1	-6
EU10 [1)]	71	77	83	81	79	78	73	69	7	-9	-2
EU12 [1)]	80	81	79	78	76	74	72	74	-5	0	-6
EU25 [1)]	80	81	81	80	78	75	73	74	-4	-2	-6

1) excluding countries which have not provided data

Table 3-17 Lower labour productivity scenario: gross public pension expenditure as a share of GDP between 2004 and 2050

Public pensions, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,1	12,2	13,5	14,8	16,0	15,9	4,4	1,1	5,5
CZ	8,5	8,2	8,2	8,5	9,0	9,6	12,3	14,2	1,2	4,5	5,7
DK	9,5	10,1	10,8	11,3	12,0	12,8	13,5	12,8	3,3	0,0	3,3
DE	11,4	10,4	10,5	11,0	11,6	12,3	12,8	13,1	0,9	0,8	1,7
EE	6,7	6,8	6,0	5,4	5,1	4,8	4,5	4,4	-1,9	-0,4	-2,3
GR											
ES	8,6	8,9	8,9	9,5	10,6	12,3	15,9	16,7	3,7	4,4	8,1
FR	12,8	13,0	13,3	13,9	14,3	14,7	15,4	15,3	1,9	0,6	2,5
IE	4,7	5,2	5,9	6,5	7,2	7,9	9,3	11,1	3,1	3,3	6,4
IT	14,2	14,0	13,9	14,2	14,7	15,5	16,5	15,2	1,2	-0,2	1,0
CY	6,9	8,0	8,9	10,0	11,1	12,6	15,8	21,4	5,7	8,8	14,5
LV	6,8	4,9	4,6	4,9	5,4	5,7	6,0	5,7	-1,1	0,0	-1,1
LT	7,0	6,6	6,6	7,0	7,6	8,0	8,3	8,7	1,0	0,8	1,8
LU	10,0	9,8	10,9	12,0	13,8	15,1	17,1	17,5	5,1	2,4	7,5
HU	10,4	11,1	11,6	12,6	13,2	13,6	16,2	17,3	3,2	3,7	6,9
MT	7,4	8,8	9,8	10,4	10,3	9,6	8,5	7,7	2,1	-1,8	0,3
NL	7,7	7,6	8,3	8,9	9,7	10,7	11,7	11,3	2,9	0,6	3,5
AT	13,4	12,8	12,8	13,1	13,9	14,5	14,2	13,2	1,1	-1,3	-0,2
PL	13,9	11,3	9,8	9,8	9,7	9,4	8,9	8,3	-4,6	-1,1	-5,7
PT	11,1	11,9	12,7	14,4	15,4	16,6	19,8	22,1	5,5	5,6	11,1
SI	11,0	11,1	11,5	12,3	13,2	14,3	16,7	18,1	3,3	3,8	7,1
SK	7,2	6,7	6,6	7,0	7,4	7,7	8,4	9,2	0,6	1,4	2,0
FI	10,7	11,2	12,1	13,1	13,8	14,4	14,3	14,2	3,7	-0,2	3,5
SE	10,6	10,1	10,4	10,5	10,8	11,3	11,8	11,5	0,6	0,3	0,9
UK	6,6	6,6	6,7	7,0	7,5	8,1	8,7	8,9	1,5	0,8	2,3
EU15 [1)]	10,6	10,4	10,5	10,9	11,6	12,3	13,3	13,2	1,7	0,9	2,6
EU10 [1)]	10,9	9,8	9,3	9,6	9,8	10,0	10,8	11,4	-0,9	1,4	0,5
EU12 [1)]	11,5	11,3	11,4	12,0	12,6	13,4	14,6	14,5	1,9	1,1	3,0
EU25 [1)]	10,6	10,3	10,4	10,9	11,5	12,2	13,1	13,1	1,5	1,0	2,5

1) excluding Greece

Table 3-18 Lower labour productivity scenario: gross total pension expenditure as a share of GDP between 2004 and 2050

Total pension expenditure, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,1	12,2	13,5	14,8	16,0	15,9	4,4	1,1	5,5
CZ	8,5	8,2	8,2	8,5	9,0	9,6	12,3	14,2	1,2	4,5	5,7
DK											
DE	11,4	10,4	10,5	11,0	11,6	12,3	12,8	13,1	0,9	0,8	1,7
EE	6,7	6,8	6,0	5,6	5,5	5,4	5,8	6,9	-1,3	1,5	0,2
GR											
ES	8,6	8,9	8,9	9,5	10,6	12,3	15,9	16,7	3,7	4,4	8,1
FR	12,8	13,0	13,3	13,9	14,3	14,7	15,4	15,3	1,9	0,6	2,5
IE											
IT	14,2	14,0	13,9	14,2	14,7	15,5	16,5	15,2	1,2	-0,2	1,0
CY	6,9	8,0	8,9	10,0	11,1	12,6	15,8	21,4	5,7	8,8	14,5
LV	6,8	4,9	4,6	5,0	5,6	6,1	7,2	8,6	-0,7	2,5	1,8
LT	7,0	6,6	6,6	7,1	7,8	8,4	9,3	10,6	1,4	2,2	3,6
LU	10,0	9,8	10,9	12,0	13,8	15,1	17,1	17,5	5,1	2,4	7,5
HU	10,4	11,1	11,6	12,7	13,4	14,1	17,9	20,7	3,7	6,5	10,3
MT	7,4	8,8	9,8	10,4	10,3	9,6	8,5	7,7	2,1	-1,8	0,3
NL	12,4	12,3	13,6	14,8	16,5	18,6	20,9	20,3	6,2	1,7	7,9
AT	13,4	12,8	12,8	13,1	13,9	14,5	14,2	13,2	1,1	-1,3	-0,2
PL	13,9	11,3	9,8	9,9	9,8	9,6	9,6	9,7	-4,3	0,0	-4,3
PT	11,1	11,9	12,7	14,4	15,4	16,6	19,8	22,1	5,5	5,6	11,1
SI	11,0	11,1	11,5	12,3	13,2	14,3	16,7	18,1	3,3	3,8	7,1
SK	7,2	6,7	6,7	7,3	7,9	8,5	9,9	11,6	1,3	3,1	4,4
FI	10,7	11,2	12,1	13,1	13,8	14,4	14,3	14,2	3,7	-0,2	3,5
SE	12,9	12,4	12,9	13,1	13,5	14,2	14,9	14,3	1,3	0,1	1,3
UK											
EU15 [1)]	12,0	11,7	11,9	12,5	13,3	14,1	15,3	15,2	2,1	1,1	3,2
EU10 [1)]	10,9	9,8	9,3	9,7	10,0	10,3	11,6	12,9	-0,6	2,6	2,0
EU12 [1)]	12,0	11,7	11,9	12,5	13,2	14,1	15,3	15,3	2,1	1,1	3,3
EU25 [1)]	11,9	11,6	11,8	12,3	13,0	13,8	15,0	15,0	1,8	1,2	3,1

1) excluding countries which have not provided data

Table 3-19 Lower labour productivity scenario: total assets in pension schemes as a share of GDP between 2004 and 2050

All pensions, assets as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	4,4	7,4	13,6	16,5	13,6	1,4			-3,0		
CZ	0,3	3,4	6,6	9,2	9,9	7,5			7,2		
DK											
DE	0,1	0,4	0,8								
EE	2,8	9,3	15,9	25,4	37,7	50,6	76,9	100,6	47,8	50,1	97,8
GR											
ES											
FR	1,2	2,0	2,9	4,1	3,5	2,9	1,6	0,0	1,7	-2,9	-1,2
IE											
IT											
CY	39,3	39,5	39,6	37,4	32,1	22,6			-16,7		
LV	0,3	12,9	26,0	38,3	48,7	58,1	69,7	72,4	57,8	14,3	72,1
LT	0,3	4,3	8,6	14,0	20,8	28,0	41,5	53,0	27,7	24,9	52,6
LU	23,6	31,7	37,6	39,6	33,4	18,3			-5,3		
HU	4,0	13,2	22,1	31,9	41,8	51,1	69,7	76,0	47,1	24,9	72,0
MT											
NL	135,5	160,7	178,9	198,6	218,0	234,1	245,3	247,8	98,5	13,7	112,3
AT											
PL	7,1	15,8	24,1	33,7	43,0	51,9	71,5	87,6	44,8	35,7	80,5
PT	4,3	4,1									
SI											
SK		7,0	12,8	19,2	25,6	32,4	47,4	60,6	32,4	28,3	60,6
FI	52,4	59,4	63,6	67,3	70,3	72,6	74,9	77,2	20,2	4,6	24,8
SE	38,6	53,5	61,1	67,2	71,6	74,9	71,3	63,7	36,3	-11,2	25,1
UK											

Table 3-20 Lower labour productivity scenario: contributions to public pension schemes as a share of public pensions

Public pensions, contributions / gross pensions									Change	Change	Change
Country	**2004**	**2010**	**2015**	**2020**	**2025**	**2030**	**2040**	**2050**	**2004-2030**	**2030-2050**	**2004-2050**
BE											
CZ	105	108	108	104	98	91	72	62	-14	-29	-43
DK											
DE	68	70	66	68	67	68	69	68	0	1	0
EE	98	96	108	116	122	128	133	135	29	7	37
GR											
ES											
FR	100	99	97	93	90	88	83	84	-12	-3	-16
IE	76	65	57	52	46	43	36	30	-34	-12	-46
IT	72	74	74	73	71	66	64	70	-5	3	-2
CY	80	80	77	71	64	56	46	33	-24	-24	-47
LV	104	124	124	114	102	95	89	95	-9	0	-9
LT	97	96	94	87	78	75	74	70	-23	-4	-27
LU	99	102	92	84	73	66	58	57	-32	-9	-41
HU	74	61	57	52	50	48	42	39	-26	-9	-35
MT	96	77	66	58	53	52	50	47	-43	-5	-48
NL	88	84	77	71	66	61	57	59	-27	-2	-29
AT	67	71	71	68	63	60	60	65	-7	5	-2
PL	55	70	81	81	82	84	89	95	29	11	40
PT	95	88	78	68	63	58	47	42	-37	-15	-52
SI	85	91	90	86	80	74	63	58	-10	-16	-27
SK	90	75	74	68	64	61	56	48	-29	-12	-42
FI	85	81	81	80	79	79	80	81	-6	2	-5
SE	72	74	72	71	69	66	62	64	-7	-2	-9
UK	87	89	90	89	84	78	74	71	-9	-7	-16
EU15 [1)]	80	82	80	78	75	73	70	71	-8	-2	-10
EU10 [1)]	71	77	82	79	76	75	69	65	4	-10	-6
EU12 [1)]	80	81	79	77	74	72	70	71	-8	-1	-9
EU25 [1)]	80	81	80	78	76	73	70	70	-7	-2	-10

1) excluding countries which have not provided data

Table 3-21 Higher interest rate scenario: gross public pension expenditure as a share of GDP between 2004 and 2050

Public pensions, gross as % of GDP								Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,0	12,1	13,4	14,7	15,7	15,5	4,3	0,8	5,1
CZ	8,5	8,2	8,2	8,4	8,9	9,6	12,2	14,0	1,1	4,5	5,6
DK	9,5	10,1	10,8	11,3	12,0	12,8	13,5	12,8	3,3	0,0	3,3
DE	11,4	10,5	10,5	11,0	11,6	12,3	12,8	13,1	0,9	0,8	1,7
EE	6,7	6,8	6,0	5,4	5,1	4,7	4,4	4,2	-1,9	-0,5	-2,5
GR											
ES	8,6	8,9	8,8	9,3	10,4	11,8	15,2	15,7	3,3	3,9	7,1
FR	12,8	12,9	13,2	13,7	14,0	14,3	15,0	14,8	1,5	0,5	2,0
IE	4,7	5,2	5,9	6,5	7,2	7,9	9,3	11,1	3,1	3,2	6,4
IT	14,2	14,0	13,8	14,0	14,4	15,0	15,9	14,7	0,8	-0,4	0,4
CY	6,9	8,0	8,8	9,9	10,8	12,2	15,0	19,8	5,3	7,6	12,9
LV	6,8	4,9	4,6	4,9	5,3	5,6	5,9	5,6	-1,2	-0,1	-1,2
LT	6,7	6,6	6,6	7,0	7,6	7,9	8,2	8,6	1,2	0,7	1,8
LU	10,0	9,8	10,9	11,9	13,7	15,0	17,0	17,4	5,0	2,4	7,4
HU	10,4	11,1	11,6	12,5	13,0	13,5	16,0	17,1	3,1	3,7	6,7
MT	7,4	8,8	9,8	10,2	10,0	9,1	7,9	7,0	1,7	-2,1	-0,4
NL	7,7	7,6	8,3	9,0	9,7	10,7	11,7	11,2	2,9	0,6	3,5
AT	13,4	12,8	12,7	12,8	13,5	14,0	13,4	12,2	0,6	-1,7	-1,2
PL	13,9	11,3	9,8	9,7	9,5	9,2	8,7	8,0	-4,7	-1,2	-5,9
PT	11,1	11,9	12,6	14,1	15,0	16,0	18,8	20,8	4,9	4,8	9,7
SI	11,0	11,1	11,6	12,3	13,3	14,4	16,8	18,3	3,4	3,9	7,3
SK	7,2	6,7	6,6	7,0	7,3	7,7	8,2	9,0	0,5	1,3	1,8
FI	10,7	11,2	12,0	12,9	13,6	14,0	13,9	13,8	3,4	-0,2	3,2
SE	10,6	10,1	10,3	10,5	10,7	11,2	11,8	11,6	0,5	0,4	1,0
UK	6,6	6,6	6,7	6,9	7,3	7,9	8,4	8,6	1,3	0,7	2,0
EU15 [1)]	10,6	10,4	10,5	10,8	11,4	12,1	12,9	12,9	1,5	0,8	2,3
EU10 [1)]	10,9	9,8	9,2	9,5	9,7	9,8	10,6	11,2	-1,1	1,3	0,3
EU12 [1)]	11,5	11,3	11,4	11,8	12,5	13,2	14,2	14,1	1,6	0,9	2,6
EU25 [1)]	10,6	10,3	10,4	10,7	11,3	11,9	12,8	12,8	1,3	0,8	2,2

1) excluding Greece

Table 3-22 Higher interest rate scenario: gross total pension expenditure as a share of GDP between 2004 and 2050

Total pension expenditure, gross as % of GDP								Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,0	12,1	13,4	14,7	15,7	15,5	4,3	0,8	5,1
CZ	8,5	8,2	8,2	8,4	8,9	9,6	12,2	14,0	1,1	4,5	5,6
DK											
DE	11,4	10,5	10,5	11,0	11,6	12,3	12,8	13,1	0,9	0,8	1,7
EE	6,7	6,8	6,0	5,6	5,4	5,4	5,9	7,3	-1,3	1,9	0,6
GR											
ES	8,6	8,9	8,8	9,3	10,4	11,8	15,2	15,7	3,3	3,9	7,1
FR	12,8	12,9	13,2	13,7	14,0	14,3	15,0	14,8	1,5	0,5	2,0
IE											
IT	14,2	14,0	13,8	14,0	14,4	15,0	15,9	14,7	0,8	-0,4	0,4
CY	6,9	8,0	8,8	9,9	10,8	12,2	15,0	19,8	5,3	7,6	12,9
LV	6,8	4,9	4,6	5,0	5,6	6,1	7,3	9,0	-0,7	3,0	2,2
LT	6,7	6,6	6,6	7,1	7,8	8,4	9,4	10,9	1,7	2,5	4,2
LU	10,0	9,8	10,9	11,9	13,7	15,0	17,0	17,4	5,0	2,4	7,4
HU	10,4	11,1	11,6	12,7	13,3	14,1	18,1	21,3	3,7	7,3	11,0
MT	7,4	8,8	9,8	10,2	10,0	9,1	7,9	7,0	1,7	-2,1	-0,4
NL	12,4	12,5	13,9	15,2	16,9	18,9	21,1	20,2	6,6	1,3	7,8
AT	13,4	12,8	12,7	12,8	13,5	14,0	13,4	12,2	0,6	-1,7	-1,2
PL	13,9	11,3	9,8	9,8	9,7	9,5	9,4	9,6	-4,4	0,1	-4,3
PT	11,1	11,9	12,6	14,1	15,0	16,0	18,8	20,8	4,9	4,8	9,7
SI	11,0	11,1	11,6	12,4	13,5	14,7	17,5	19,3	3,7	4,6	8,3
SK	7,2	6,7	6,7	7,3	7,8	8,5	10,0	11,9	1,3	3,4	4,7
FI	10,7	11,2	12,0	12,9	13,6	14,0	13,9	13,8	3,4	-0,2	3,2
SE	12,9	12,5	12,9	13,1	13,5	14,2	15,1	14,6	1,3	0,4	1,7
UK											
EU15 [1)]	12,0	11,7	11,9	12,4	13,1	13,9	15,0	14,8	1,9	0,9	2,8
EU10 [1)]	10,9	9,8	9,3	9,6	9,9	10,2	11,6	13,0	-0,7	2,8	2,1
EU12 [1)]	12,0	11,7	11,9	12,4	13,1	13,9	15,0	14,8	1,9	1,0	2,9
EU25 [1)]	11,9	11,6	11,7	12,2	12,8	13,6	14,7	14,7	1,6	1,1	2,7

1) excluding countries which have not provided information

Table 3-23 Higher interest rate scenario: total assets in pension schemes as a share of GDP between 2004 and 2050

All pensions, assets as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	4,4	7,5	14,2	17,9	16,2	5,4			1,0		
CZ	0,3	3,6	7,2	10,6	12,4	11,4			11,1		
DK											
DE	0,1	0,4	0,9								
EE	2,8	9,4	16,5	26,8	40,3	54,7	84,6	111,9	51,9	57,2	109,1
GR											
ES											
FR	1,2	2,1	3,1	4,5	3,9	3,3	1,8	0,0	2,1	-3,3	-1,2
IE											
IT											
CY											
LV	0,3	13,1	26,6	39,8	51,6	62,8	78,7	83,5	62,4	20,7	83,2
LT	0,3	4,4	9,0	14,9	22,4	30,8	47,1	61,1	30,5	30,4	60,8
LU	23,6	33,2	40,7	44,6	40,5	27,2			3,5		
HU	4,0	13,7	23,3	34,1	45,3	55,9	77,6	84,4	52,0	28,5	80,4
MT											
NL	135,5	152,1	165,6	180,8	196,1	208,1	212,9	211,2	72,5	3,1	75,7
AT											
PL	7,2	16,6	25,8	36,6	47,3	57,8	81,4	101,0	50,6	43,2	93,8
PT	4,3	4,2									
SI	1,4	5,5	9,6	13,9	18,3	22,6	30,1	35,9	21,3	13,3	34,5
SK		7,2	13,3	20,2	27,2	34,8	52,0	67,3	34,8	32,5	67,3
FI	52,4	62,1	67,8	72,8	77,0	80,5	84,9	88,8	28,1	8,3	36,4
SE	38,7	55,5	65,1	73,0	79,2	84,5	84,1	78,2	45,8	-6,3	39,5
UK											

Table 3-24 Higher interest rate scenario: contributions to public pension schemes as a share of public pensions

Public pensions, contributions / gross pensions									Change	Change	Change
Country	**2004**	**2010**	**2015**	**2020**	**2025**	**2030**	**2040**	**2050**	**2004-2030**	**2030-2050**	**2004-2050**
BE											
CZ	105	108	109	105	100	93	73	63	-12	-30	-42
DK											
DE	68	69	66	67	68	68	68	68	0	0	0
EE	98	97	109	119	125	132	139	146	33	14	47
GR											
ES											
FR	100	99	98	94	92	90	86	87	-10	-3	-13
IE	76	65	57	52	46	43	36	30	-34	-12	-46
IT	72	74	75	74	72	68	66	72	-3	4	1
CY	80	80	79	73	67	59	49	36	-21	-23	-44
LV	104	124	125	115	104	97	91	97	-7	1	-7
LT	101	96	94	87	78	75	75	72	-25	-3	-29
LU	99	102	93	85	74	67	59	58	-32	-9	-41
HU	74	61	58	52	51	50	43	40	-25	-9	-34
MT	96	77	66	58	53	52	50	47	-43	-5	-48
NL	88	84	77	71	66	61	57	59	-27	-2	-29
AT	67	71	71	69	65	62	64	70	-5	8	3
PL	55	70	82	83	84	87	93	100	32	13	45
PT	95	88	78	68	64	59	49	44	-36	-14	-50
SI	85	91	90	86	80	74	63	58	-10	-16	-27
SK	90	75	75	69	64	61	56	49	-29	-12	-41
FI	85	79	78	77	76	75	76	75	-10	0	-10
SE	72	74	72	71	69	66	61	63	-6	-3	-10
UK	87	90	91	90	86	80	76	73	-7	-7	-14
EU15 [1)]	80	82	80	79	76	74	71	72	-7	-2	-8
EU10 [1)]	71	78	83	80	78	77	71	68	6	-9	-3
EU12 [1)]	80	81	79	77	75	73	71	72	-7	-1	-8
EU25 [1)]	80	81	80	79	77	74	71	72	-6	-2	-8

1) excluding countries which have not provided data

Table 3-25 Lower interest rate scenario: gross public pension expenditure as a share of GDP between 2004 and 2050

Public pensions, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,0	12,1	13,4	14,7	15,7	15,5	4,3	0,8	5,1
CZ	8,5	8,2	8,2	8,4	8,9	9,6	12,2	14,0	1,1	4,5	5,6
DK	9,5	10,1	10,8	11,3	12,0	12,8	13,5	12,8	3,3	0,0	3,3
DE	11,4	10,5	10,5	11,0	11,6	12,3	12,8	13,1	0,9	0,8	1,7
EE	6,7	6,8	6,0	5,4	5,1	4,7	4,4	4,2	-1,9	-0,5	-2,5
GR	:	:	:	:	:	:	:	:	:	:	:
ES	8,6	8,9	8,8	9,3	10,4	11,8	15,2	15,7	3,3	3,9	7,1
FR	12,8	12,9	13,2	13,7	14,0	14,3	15,0	14,8	1,5	0,5	2,0
IE	4,7	5,2	5,9	6,5	7,2	7,9	9,3	11,1	3,1	3,2	6,4
IT	14,2	14,0	13,8	14,0	14,4	15,0	15,9	14,7	0,8	-0,4	0,4
CY	6,9	8,0	8,8	9,9	10,8	12,2	15,0	19,8	5,3	7,6	12,9
LV	6,8	4,9	4,6	4,9	5,3	5,6	5,9	5,6	-1,2	-0,1	-1,2
LT	6,7	6,6	6,6	7,0	7,6	7,9	8,2	8,6	1,2	0,7	1,8
LU	10,0	9,8	10,9	11,9	13,7	15,0	17,0	17,4	5,0	2,4	7,4
HU	10,4	11,1	11,6	12,5	13,0	13,5	16,0	17,1	3,1	3,7	6,7
MT	7,4	8,8	9,8	10,2	10,0	9,1	7,9	7,0	1,7	-2,1	-0,4
NL	7,7	7,6	8,3	9,0	9,7	10,7	11,7	11,2	2,9	0,6	3,5
AT	13,4	12,8	12,7	12,8	13,5	14,0	13,4	12,2	0,6	-1,7	-1,2
PL	13,9	11,3	9,8	9,7	9,5	9,2	8,7	8,0	-4,7	-1,2	-5,9
PT	11,1	11,9	12,6	14,1	15,0	16,0	18,8	20,8	4,9	4,8	9,7
SI	11,0	11,1	11,6	12,3	13,3	14,4	16,8	18,3	3,4	3,9	7,3
SK	7,2	6,7	6,6	7,0	7,3	7,7	8,2	9,0	0,5	1,3	1,8
FI	10,7	11,2	12,0	12,9	13,5	13,9	13,8	13,6	3,3	-0,3	3,0
SE	10,6	10,1	10,3	10,4	10,6	11,0	11,4	11,0	0,3	0,0	0,3
UK	6,6	6,6	6,7	6,9	7,3	7,9	8,4	8,6	1,3	0,7	2,0
EU15 [1)]	10,6	10,4	10,5	10,8	11,4	12,1	12,9	12,9	1,5	0,8	2,3
EU10 [1)]	10,9	9,8	9,2	9,5	9,7	9,8	10,6	11,2	-1,1	1,3	0,3
EU12 [1)]	11,5	11,3	11,4	11,8	12,5	13,2	14,2	14,1	1,6	0,9	2,6
EU25 [1)]	10,6	10,3	10,4	10,7	11,3	11,9	12,8	12,7	1,3	0,8	2,1

1) excluding Greece

Table 3-26 Lower interest rate scenario: gross total pension expenditure as a share of GDP between 2004 and 2050

Total pension expenditure, gross as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	10,4	10,4	11,0	12,1	13,4	14,7	15,7	15,5	4,3	0,8	5,1
CZ	8,5	8,2	8,2	8,4	8,9	9,6	12,2	14,0	1,1	4,5	5,6
DK											
DE	11,4	10,5	10,5	11,0	11,6	12,3	12,8	13,1	0,9	0,8	1,7
EE	6,7	6,8	6,0	5,6	5,4	5,2	5,4	6,0	-1,5	0,9	-0,6
GR											
ES	8,6	8,9	8,8	9,3	10,4	11,8	15,2	15,7	3,3	3,9	7,1
FR	12,8	12,9	13,2	13,7	14,0	14,3	15,0	14,8	1,5	0,5	2,0
IE											
IT	14,2	14,0	13,8	14,0	14,4	15,0	15,9	14,7	0,8	-0,4	0,4
CY	6,9	8,0	8,8	9,9	10,8	12,2	15,0	19,8	5,3	7,6	12,9
LV	6,8	4,9	4,6	5,0	5,5	6,0	6,8	7,7	-0,9	1,7	0,9
LT	6,7	6,6	6,6	7,1	7,7	8,2	9,0	10,0	1,5	1,7	3,2
LU	10,0	9,8	10,9	11,9	13,7	15,0	17,0	17,4	5,0	2,4	7,4
HU	10,4	11,1	11,6	12,6	13,2	13,8	17,2	19,4	3,5	5,6	9,1
MT	7,4	8,8	9,8	10,2	10,0	9,1	7,9	7,0	1,7	-2,1	-0,4
NL	12,4	12,2	13,2	14,3	15,8	17,8	20,1	19,7	5,4	1,9	7,3
AT	13,4	12,8	12,7	12,8	13,5	14,0	13,4	12,2	0,6	-1,7	-1,2
PL	13,9	11,3	9,8	9,8	9,7	9,5	9,3	9,3	-4,5	-0,1	-4,6
PT	11,1	11,9	12,6	14,1	15,0	16,0	18,8	20,8	4,9	4,8	9,7
SI	11,0	11,1	11,6	12,4	13,5	14,7	17,5	19,3	3,7	4,6	8,3
SK	7,2	6,7	6,7	7,2	7,7	8,3	9,4	10,8	1,1	2,5	3,6
FI	10,7	11,2	12,0	12,9	13,5	13,9	13,8	13,6	3,3	-0,3	3,0
SE	12,9	12,4	12,7	12,9	13,1	13,6	14,0	13,2	0,6	-0,3	0,3
UK											
EU15 [1)]	12,0	11,7	11,9	12,3	13,0	13,8	14,9	14,7	1,8	0,9	2,7
EU10 [1)]	10,9	9,8	9,3	9,6	9,9	10,1	11,3	12,4	-0,8	2,3	1,5
EU12 [1)]	12,0	11,7	11,8	12,3	13,0	13,8	14,9	14,8	1,8	1,0	2,8
EU25 [1)]	11,9	11,6	11,7	12,1	12,8	13,5	14,6	14,5	1,5	1,1	2,6

1) excluding countries which have not provided data

Table 3-27 Lower interest rate scenario: total assets in pension schemes as a share of GDP between 2004 and 2050

All pensions, assets as % of GDP									Change	Change	Change
Country	2004	2010	2015	2020	2025	2030	2040	2050	2004-2030	2030-2050	2004-2050
BE	4,4	7,1	12,8	14,9	11,3						
CZ	0,3	3,4	6,5	9,2	9,8	7,7			7,4		
DK											
DE	0,1	0,4	0,8								
EE	2,8	9,3	15,2	23,9	35,1	46,8	70,3	92,2	44,0	45,4	89,4
GR											
ES											
FR	1,2	1,9	2,7	3,7	3,1	2,5	1,3	0,0	1,3	-2,5	-1,2
IE											
IT											
CY											
LV	0,3	12,7	25,2	36,3	45,3	52,7	60,4	61,4	52,3	8,7	61,1
LT	0,3	4,2	8,3	13,2	19,2	25,4	36,6	45,6	25,1	20,3	45,3
LU	23,6	30,2	34,4	34,5	26,6	10,5					
HU	4,0	12,7	20,7	29,2	37,4	44,8	59,5	64,6	40,9	19,8	60,6
MT											
NL	135,5	166,9	189,2	211,4	235,2	256,1	275,9	284,3	120,6	28,2	148,8
AT											
PL	6,9	15,1	22,5	30,7	38,4	45,4	60,4	72,3	38,4	27,0	65,4
PT	4,3	3,8									
SI	1,4	5,5	9,6	13,9	18,3	22,6	30,1	35,9	21,3	13,3	34,5
SK		6,8	12,2	17,8	23,2	28,7	40,4	50,4	28,7	21,7	50,4
FI	52,4	56,6	58,2	59,3	60,1	60,4	59,9	60,0	8,0	-0,4	7,6
SE	38,6	51,5	56,6	59,8	61,4	62,3	56,2	49,4	23,7	-12,8	10,9
UK											

Table 3-28 Lower interest rate scenario: contributions to public pension schemes as a share of public pensions

Public pensions, contributions / gross pensions									Change	Change	Change
Country	**2004**	**2010**	**2015**	**2020**	**2025**	**2030**	**2040**	**2050**	**2004-2030**	**2030-2050**	**2004-2050**
BE											
CZ	105	108	109	105	100	93	73	63	-12	-30	-42
DK											
DE	68	69	66	67	68	68	68	68	0	0	0
EE	98	97	109	119	125	132	139	146	33	14	47
GR											
ES											
FR	100	99	98	94	92	90	86	87	-10	-3	-13
IE	76	65	57	52	46	43	36	30	-34	-12	-46
IT	72	74	75	74	72	68	66	72	-3	4	1
CY	80	80	79	73	67	59	49	36	-21	-23	-44
LV	104	124	125	115	104	97	91	97	-7	1	-7
LT	101	96	94	87	78	75	74	71	-26	-4	-29
LU	99	102	93	85	74	67	59	58	-32	-9	-41
HU	74	61	57	52	50	48	41	39	-26	-10	-36
MT	96	77	66	58	53	52	50	47	-43	-5	-48
NL	88	84	77	71	66	61	57	59	-27	-2	-29
AT	67	71	71	69	65	62	64	70	-5	8	3
PL	55	70	82	83	84	87	93	100	32	13	45
PT	95	88	78	68	64	59	49	44	-36	-14	-50
SI	85	91	90	86	80	74	63	58	-10	-16	-27
SK	90	75	75	69	64	61	56	49	-29	-12	-41
FI	85	81	83	83	83	83	86	87	-2	4	2
SE	72	74	72	71	70	67	64	67	-5	-1	-6
UK	87	90	91	90	86	80	76	73	-7	-7	-14
EU15 [1)]	80	82	80	79	77	74	71	72	-6	-2	-8
EU10 [1)]	72	78	83	80	78	77	71	67	5	-9	-4
EU12 [1)]	80	81	79	77	75	73	71	72	-7	-1	-7
EU25 [1)]	80	81	80	79	77	74	71	72	-6	-2	-8

1) excluding countries which have not provided information

4. METHODOLOGIES USED TO PROJECT HEALTH CARE SPENDING

4.1. Projection methodology for *pure ageing* scenario

The pure ageing scenario based on the expansion of morbidity hypothesis

In the *pure ageing* scenario, all gains in life expectancy are assumed to be spent in bad health while the number of years spent in good health remains constant. The extension of lifespan will not affect an average individual's health status at any given age, and consequently his or her age-related expenditure on health care will not change over time. One can approximate this situation by assuming that health care cost per capita remains constant in GDP per capita-adjusted terms over the whole projection period. Based on this assumption, the projection is then made in the following manner.

First, for the time horizon of the projection exercise (2004-50), the age-related expenditure profiles (showing the average health care spending per capita for each year of age (from 0 to 100 or less, according to data availability) are assumed to grow in line with the same two cost assumptions as used in the 2001 exercise, i.e. GDP per capita and GDP per worker (based on the assumptions agreed by the AWG for the 2005 budgetary projection exercise). Therefore:

$$c'_{g,a,n} = c_{g,a}\Delta Ypc_n \qquad [1]$$

where:

$c'_{g,a,n}$ is cost per capita of a person of a given gender g and age a in a given year n of the projection period adjusted to the GDP per capita growth;

$c_{g,a}$ is constant cost per capita of a person of a given gender g and age a;

ΔYpc_n is GDP per capita rate growth in year n,

$$\Delta Ypc_n = \left(\frac{Y_n}{\sum p_{g,a,n}} - \frac{Y_{n-1}}{\sum p_{g,a,n-1}}\right) \Big/ \left(\frac{Y_{n-1}}{\sum p_{g,a,n-1}}\right) \qquad [2]$$

Y_n is GDP in year n;

$p_{g,a,n}$ is the projected population of a given gender g and age a in a given year n.

Second, this unit cost for each year is multiplied by the projected population of each year of age (using the baseline population projection outlined in chapter 1)

$$S_{g,a,n} = c'_{g,a,n}\, p_{g,a,n} \qquad [3]$$

where:

$S_{g,\,a,\,n}$ is spending on health care realised by people of a given gender *g* and age *a* in a given year *n*.

Next, the resulting total health care spending is divided by the GDP projected using the rates of change agreed by the Ageing Working Group in order to obtain share of health care expenditure in GDP:

$$T_n = \frac{\sum S_{g,a,n}}{Y_n} \qquad [4]$$

where:

T_n is the share of total health care spending in GDP in a given year *n*.

4.2. Projection methodology for scenarios on health status

To capture possible changes in the health care status (morbidity) of populations over time, an additional assumption is required to run the *constant health* scenario and the *improved health* scenario. This is achieved by 'linking' changes in life expectancy to changes in morbidity (proxied by the age-related expenditure profile). In other words, for each year and for each age/gender, the age-related expenditure profile is shifted outwards – i.e. providing modified values of cost per capita, which then applied in the same manner as the *pure ageing* scenario described above. As regards the scale of the outward shift in the age-related expenditure profile:

- for the *constant health scenario*, it is directly proportional to the increase in life expectancy for each cohort;

- for the *improved health scenario*, the same outward shift is assumed multiplied by a factor of 2.

First, the change in life expectancy in relation to the base year is found for each year of the projections (for example, total life expectancy for a 50-year-old man in Austria is expected to increase from 29.15 years in 2004 to 33.07 years in 2030, thus by 3.92 years)[1]:

$$\Delta e_{g,a,n} = e_{g,a,n} - e_{g,a,2004} \qquad [5]$$

where:

[1] In the *constant health* scenario the total number of years spent in bad health during a person's life time is assumed to remain the same while life expectancy increases, so the morbidity rate must evolve in line with mortality rate for each age cohort. Thus, if between time *t* and *t+1,* total life expectancy increases by *n* years for a cohort of age *x*, healthy life expectancy for that very same age cohort must also increase by *n* years in order for the dynamic equilibrium hypothesis to be valid. If healthy life expectancy increases by *n* years, then the health status (and consequently health care spending) of this cohort of age *x* at time *t+1* will be the same as the health status (and health care spending) of cohort of age *x-n* at time *t*.

$e_{g,\,a,\,n}$ is life expectancy of an average person of a given gender *g* and age *a* in year *n*.

Second, for each year of projection, the respective reference age on the original age profile curve is obtained by subtracting that change from the concerned age cohort[2]. This is done only for those sections of the age-profile where the cost per capita is growing[3] (for example for the age cohort of 50 years-old, the value of cost per capita for that age in 2030 will be the same as the value of cost per capita for the age cohort of 50-3.92 = 46.08 ≈ 46.1 years in 2004).

Thirdly, the precise value of cost per capita assigned to that reference age is picked up:

$$c_{g,a,n} = c_{g,a-\Delta e_{g,a,n},2004} \qquad [6]$$

where:

$c_{g,\,a,\,n}$ is cost per capita assigned to a person of a given gender *g* and age *a* in a given year *n* of the projection period;

$c_{g,\,a\text{-}\Delta eg,a,n,\,2004}$ is cost per capita assigned to a person of a given gender and age $a\text{-}\Delta e_{g,a,n}$ (specified with a precision to a decimal part of a year) in the base year (2004).

Fourthly, the resulting value of cost per capita serves then as an input value to the basic calculations presented earlier in equations [1] – [4].

The procedure described above is also used to run the projections according to *dynamic equilibrium* scenario. In the *morbidity compression* scenario, the shift of the age profile is twice as large as in dynamic equilibrium scenario. Thus, equation [6] may be rewritten in the following way:

$$c_{g,a,n} = c_{g,a-2\Delta e_{g,a,n},2004} \qquad [7]$$

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[2] The changes in life expectancy and thus shifts in of the age profile from one year to another are sometimes very small (in a range of a tenth part of a year). However, the data gathered by the Member States does not provide detailed information on costs per capita by single year of age (the most detailed item available is a 5-year average), so an additional calculation needs to be performed. To solve this problem, the intermediate values can be obtained by simple extrapolation/trend-smoothening method from the existing average figures. This way it is possible to assign a concrete value of cost per capita to each tenth part of a year of age.

[3] For the young and the oldest old the reference age remains the same over the whole projection period

4.3. The projection methodology for the *death-related costs* scenario

The methodology to calculate spending on health care taking into account the number of remaining years if life is a further improvement of the methodology used in the pure demographic scenario. The difference lies in the way the unit cost of health care is calculated.

In the death-related costs scenario, the population of each gender and year of age is divided into subgroups according to the number of remaining years of life using mortality rate as a weighting factor (e.g. number of people aged *n* expected to die within two years from year *t* is calculated as population aged *n* in year *t* multiplied by the probability of dying within two years which is expressed as: probability of surviving year *t* by persons aged *n* times probability of surviving year *t+1* by persons aged *n+1* times probability of dying in year *t+2* by persons aged *n+2*).

Each subgroup is assigned a different unit cost, being an adjustment of the 'normal' unit cost[4] with the ratio of health care expenditure borne by a person of a given age and gender who is in her terminal phase of life to health care expenditure borne by a survivor. The number of people in each subgroup is thus multiplied by its respective cost per capita which gives total spending of each subgroup and the sum of total spending borne by the subgroups is total spending on health care in a given year.

In a formalised way, the methodology can be presented as follows.

First, ***the total population of each gender and age is divided into subgroups, according to the number of remaining years of life***. Consequently, there are *z* subgroups of decedents (those who are going to die within 0, or 1, or 2, …, or *z* years) and one group of survivors (those who are going to survive the z^{th} year). In order to obtain the size of each subgroup, the probability of dying in each gender, age and year of projection period are calculated.

The probability that a person of gender *g* and age *a* will die in the x^{th} year after a given year *n* can be expressed by an equation:

$$d_{g,a,n,x} = \prod_{i=0}^{x-1}(1 - M_{g,a+i,n+i}) \cdot M_{g,a+x,n+x} \qquad [8]$$

where:

$M_{g,a+i,n+i}$ is mortality rate of people of gender *g* aged *a+i* in the i^{th} year after given year *n*

and:

$x \in (0,1,2...z)$

where *z* is the highest number of years considered as time 'close to death' and for which data on costs is available.

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[4] As in the age-related expenditure profile used in approach I

Analogically, the probability that a person of gender *g* and age *a* in a given year *n* will survive z^{th} year can be expressed in a following way:

$$s_{g,a,n} = \prod_{i=0}^{z} (1 - M_{g,a+i,n+i}) \qquad [9]$$

So, number of persons of a given gender *g* and age *a* who are going to die in x^{th} year from a given year *n* can be expressed in the following way:

$$Nd_{g,a,n,x} = d_{g,a,n,x} \cdot p_{g,a,n} \qquad [10]$$

where:

$p_{g,a,n}$ is projected population of a given gender *g* and age *a* in a given year *n*

Analogically, the number of those who are going to survive x^{th} year:

$$Ns_{g,a,n} = s_{g,a,n} \cdot p_{g,a,n} \qquad [11]$$

Second, ***the unit health care cost of each person in a population is calculated***. Contrary to approach I, per capita cost is not the same for all the individuals, but varies depending on whether a person is in her terminal phase of life. One must find the cost per capita of a person of a given gender *g* and age *a*, who is going to die within *x* years' time from a given year *n*, as well as the cost per capita of a person of the same gender *g* and age *a* surviving the x^{th} year.

The ratio between the two costs is taken as the input data from the background studies (see tables in annex 1) and may be expressed as:

$$f_{g,a,x} = \frac{cd_{g,a,x}}{cs_{g,a}} \qquad [12]$$

where:

$cd_{g,a,x}$ is health care cost per capita of a person of a given gender *g* and age *a* dying in the x^{th} year from the current year;

$cs_{g,a}$ is health care cost per capita of a person of the same gender *g* and age *a* surviving the period considered as time 'close to death' from the current year.

To obtain the two costs, one must use the average cost per capita of a person of a given gender *g* and age *a* as given in the 'age-related expenditure profiles' provided to the AWG by

the Member States. It may be defined as an average of the per capita costs borne by all the subgroups of decedents and survivors, weighted by the size of each subgroup:

$$c_{g,a} = \frac{\sum_{x=0}^{z} cd_{g,a,x} \cdot Nd_{g,a,x,2004} + cs_{g,a} \cdot Ns_{g,a,2004}}{p_{g,a,2004}} \qquad [13]$$

It must be borne in mind that the unit costs of decedents and survivors are calculated as for the base year 2004 (thus index *2004* used in the equations) and are kept constant over the whole projection period.

Substituting for $cd_{g,a,x}$ using [12], one gets:

$$c_{g,a} = \frac{\sum_{x=0}^{z} f_{g,a,x} \cdot cs_{g,a} \cdot Nd_{g,a,x,2004} + cs_{g,a} \cdot Ns_{g,a,2004}}{p_{g,a,2004}} \qquad [14]$$

or:

$$c_{g,a} = \frac{cs_{g,a}\left(\sum_{x=0}^{z} f_{g,a,x} \cdot Nd_{g,a,x,2004} + Ns_{g,a,2004}\right)}{p_{g,a,2004}} \qquad [14a]$$

This way, both $cs_{g,a}$ and – coming back to equation [12] - $cd_{g,a,x}$ can be calculated:

$$cs_{g,a} = \frac{c_{g,a} \cdot p_{g,a,2004}}{\sum_{x=0}^{z} f_{g,a,x} \cdot Nd_{g,a,x,2004} + Ns_{g,a,2004}} \qquad [15]$$

$$cd_{g,a,x} = f_{g,a,x} \cdot \frac{c_{g,a} \cdot p_{g,a,2004}}{\sum_{x=0}^{z} f_{g,a,x} \cdot Nd_{g,a,x,2004} + Ns_{g,a,2004}} \qquad [16]$$

As in *pure ageing* scenario and scenarios on health status, for the time horizon of the projection exercise (2004-50) the age-related expenditure profiles (showing the average health care spending per capita for each year of age (from 0 to 100 or less, according to data availability) are assumed to grow in line with the same two cost assumptions as used in the

2001 exercise, i.e. GDP per capita and GDP per worker (based on the assumptions agreed by the AWG for the 2005 budgetary projection exercise). Therefore:

$$cd'_{g,a,x,n} = cd_{g,a,x,n} \cdot rYpc_n \qquad [17]$$

where:

$cd'_{g,\,a,\,x,\,n}$ is cost per capita of a person of a given gender *g* and age *a* who is going to die within *x* years, in a given year *n* of the projection period adjusted to the GDP per capita growth;

$rYpc_n$ is GDP per capita rate growth in year *n*,

$$rYpc_n = \left(\frac{Y_n}{\sum p_{g,a,n}} - \frac{Y_{n-1}}{\sum p_{g,a,n-1}} \right) / \left(\frac{Y_{n-1}}{\sum p_{g,a,n-1}} \right) \qquad [18]$$

Y_n is GDP in year n;

$p_{g,\,a,\,n}$ is the projected population of a given gender *g* and age *a* in a given year *n*.

The same procedure applies to construct $cs'_{g,\,a,\,n}$ on the basis of $cs_{g,\,a\,,n}$, i.e. to adjust to the growth of GDP per capita the per capita cost of the subgroup of survivors.

Third, ***by multiplying the size of each subgroup by its respective cost per capita, the total cost can be calculated***. Total expenditure on health care borne by those of a given gender *g* and age *a*, who are going to die within *x* years' time from a given year *n* can be expressed in the following way:

$$ed_{g,a,x,n} = Nd_{g,a,x,n} \cdot cd_{g,a,x,n} \qquad [19]$$

and, analogically, total expenditure of those of gender *g* and age *a* who are going to survive z^{th} year:

$$es_{g,a,n} = Ns_{g,a,n} \cdot cs_{g,a,n} \qquad [20]$$

Adding total expenditures of all the subgroups (those dying within *0,1,2,..., z* years time plus those surviving z^{th} year) gives total expenditure on health care borne by entire population of gender *g* and age *a* in a given year *n*:

$$E_{g,a,n} = \sum_{x=1}^{z} ed_{g,a,n,x} + es_{g,a,n} \qquad [21]$$

Finally, ***total expenditure on health care borne by entire population in a given year n expressed as a share of the country's GDP is calculated*** as follows:

$$T_n = \frac{\sum_g \sum_a E_{g,a,n}}{Y_n} \qquad [22]$$

4.4. The projection methodology for income elasticity scenario

The projections of health care spending follow similar methodology as the pure ageing scenario with a change in the way cost per capita is evolving over the projection period. Income elasticity is taken into account by replacing equation [1] by the following one:

$$c'_{g,a,n} = c_{g,a} \Delta Ypc_n \varepsilon_n \qquad [23]$$

where:

$c'_{g,a,n}$ is cost per capita of a person of a given gender g and age a in a given year n of the projection period adjusted to the GDP per capita growth;

$c_{g,a}$ is constant cost per capita of a person of a given gender g and age a;

ΔYpc_n is GDP per capita rate growth in year n;

ε_n is income elasticity of demand, converging from ε_{2004} in the base year to ε_{2050} in 2050. Therefore:

$$\varepsilon_n = \varepsilon_{2004} - (n - 2004) \cdot \frac{\varepsilon_{2004} - \varepsilon_{2050}}{2050 - 2004} \qquad [24]$$

In the specific case where income elasticity of demand converges from 1.2 in 2004 to 1 in 2050, the value will be the following

$$\varepsilon_n = 1.2 - (n - 2004) \cdot \frac{1.2 - 1}{2050 - 2004} = 1.2 - \frac{n - 2004}{230} \qquad [24a]$$

After unit cost has been calculated the following equations [3]-[4] do not change.

4.5. The projection methodology for unit costs scenario using GDP per worker instead of GDP per capita.

The only difference between this scenario and pure ageing scenario is the change in the development pattern of unit costs. GDP per capita is replaced by GDP per worker, thus equation [1] takes the following form:

$$c'_{g,a,n} = c_{g,a} \Delta Ypw_n \qquad [25]$$

where:

ΔYpw_n is GDP per worker rate growth in year n,

$$\Delta Ypw_n = \left(\frac{Y_n}{\sum w_{g,a,n}} - \frac{Y_{n-1}}{\sum w_{g,a,n-1}} \right) / \left(\frac{Y_{n-1}}{\sum w_{g,a,n-1}} \right) \quad [26]$$

$w_{g,\,a,\,n}$ is the projected number of people employed of a given gender g and age a in a given year n.

The following equations [3]-[4] do not change.

4.6. The projection methodology for high life expectancy

The methodology to project health care expenditure is the same as in the pure ageing scenario, but the input data on population and macroeconomic variables change accordingly with the assumptions on high life expectancy.

4.7. The projection methodology for EU10 cost convergence scenario

The projections of health care spending follow similar methodology as the pure ageing scenario with a change in the way cost per capita is evolving over the projection period. Real convergence between EU15 and EU10 countries is assumed by replacing equation [1] by the following one:

$$c'_{g,a,n} = c_{g,a} \Delta Ypc_n f_n \quad [27]$$

where:

$c'_{g,\,a,\,n}$ is cost per capita of a person of a given gender g and age a in a given year n of the projection period adjusted to the GDP per capita growth;

$c_{g,\,a}$ is constant cost per capita of a person of a given gender g and age a;

ΔYpc_n is GDP per capita rate growth in year n;

f_n is a hypothetical rate of growth of unweighted average EU10 unit cost (calculated in the base year) in a given year n with respect to the base year if it was to converge to unweighted average EU15 level by 2050 (calculated in the base year). Therefore:

$$f_n = (n - 2004) \cdot \frac{\overline{c_{g,a,EU15}} - \overline{c_{g,a,EU10}}}{2050 - 2004} \quad [28]$$

where:

$\overline{c_{g,a,EU15}}$ is unweighted EU15 average cost per capita of a given gender g and age a calculated in the base year;

$\overline{c_{g,a,EU10}}$ is unweighted EU10 average cost per capita of a given gender *g* and age *a* calculated in the base year.

After unit cost has been calculated the following equations [3]-[4] do not change.

4.8. The projection methodology for unit cost scenarios (*fast growth* and *extrapolation of past trends*)

4.8.1. Decomposition of unit costs

First, cost per capita for each gender, year of age and year of projection period is divided into four parts attributable to four items of expenditure, according to the share of each respective item in total public health care spending: wages and salaries of the health care staff, investment in health care technology and infrastructure, spending on pharmaceuticals, and the other factors.

$$c_{g,a,j} = c_{g,a} \cdot q_j \qquad [29]$$

where:

$c_{g,a,j}$ is part of cost per capita of a person of a given gender *g* and age *a*, attributable to the item *j* of health care expenditure;

j stands for *w* (wages and salaries), *i* (capital investment), *ph* (pharmaceuticals) or *o* (others), or, formally: $j \in (w, i, ph, o)$;

$c_{g,a}$ is constant over time cost per capita of a person of a given gender *g* and age *a*;

q_j is the share of each respective item *j* in total public health care expenditure.

According to the initial assumptions:

$$q_w + q_i + q_{ph} + q_o = 1$$

After the decomposition, each part of the unit cost develops according to a different pattern. The patterns differ across scenarios (a separate scenario for each driver of costs) and according to the chosen variant of unit cost evolution (the note presents three possible variants, although other ones are possible, depending on initial assumptions). The general rule is that in the broad framework of each variant of unit cost evolution, separate impact of a given evolution in wages, investment and pharmaceutical spending is calculated.

Calculations are run according to two different variants of the development of unit costs: *fast growth variant* and *extrapolation variant*.

4.8.2. Fast cost growth variant

The projections in the framework of the *fast growth variant* can be expressed as follows. The part attributable to the item whose impact on the health care spending is analysed (wages and

salaries, capital investment and pharmaceutical spending - each component separately or all together) evolves according to the following rule:

$$c_{g,a,j,n} = c_{g,a,j,n-1} \cdot r_{j,n} \qquad [30]$$

where:

$c_{g,a,j,n}$ is part of cost per capita of a person of a given gender g and age a in a given year n of the projection period, attributable to the concrete item j of health care expenditure;

$r_{j,n}$ is the rate of change in the part of cost per capita attributable to the concrete item j of health care expenditure in a given year n. It is calculated according to the following method:

$$r_{j,n} = \begin{cases} rYpc_n + 0.01 & for \quad 2005 \le n < 2015 \\ rYpc_n & for \quad n \ge 2015 \end{cases} \qquad [31]$$

where:

$rYpc_n$ is GDP per capita rate of growth in year n

At the same time, the parts attributable to the three remaining items (others than the one whose impact is analysed) follow simple GDP per capita development path:

$$c_{g,a,j,n} = c_{g,a,j,n-1} \cdot rYpc_n \qquad [32]$$

where:

$c_{g,a,j,n}$ is part of cost per capita of a person of a given gender g and age a in a given year n of the projection period, attributable to the *other* items of health care expenditure, $j \in (w, i, ph, o)$;

$rYpc_n$ is GDP per capita rate of growth in year n.

4.8.3. The extrapolation of past trends variant

In the *extrapolation variant*, the three components of unit cost develop according to the same rule, but the rate of change in the base year differs according to the components.

The development pattern is the following:

$$c_{g,a,j,n} = c_{g,a,j,n-1} \cdot r_{j,n} \qquad [33]$$

where:

$c_{g,a,j,n}$ is part of cost per capita of a person of a given gender g and age a in a given year n of the projection period, attributable to the concrete item j of health care expenditure;

$r_{j\,,\,n}$ is the rate of change in the part of cost per capita attributable to the concrete item j of health care expenditure in a given year n. It is calculated according to the following method:

$$r_{j,n} = \begin{cases} r_{j,2004} \quad for \quad n = 2005 \\ r_{j,n-1} + \left(rYpc_{2015} - r_{j,2004}\right)/10 \quad for \quad 2005 < n < 2015 \\ rYpc_n \quad for \quad n \geq 2015 \end{cases} \qquad [34]$$

$rYpc_n$ is GDP per capita rate of growth in year n;

$r_{j,2004}$ is rate of growth of a specific component in the base year. It differs according to the item and equals:

$$r_{j,2004} = \begin{cases} \dfrac{\sum_{n=g-b}^{g} r_{w,n}}{b} \quad for \quad j = w \\ R_{2004} \quad for \quad j = i \\ \dfrac{\sum_{n=h-c}^{h} r_{ph,n}}{c} \quad for \quad j = ph \end{cases} \qquad [35]$$

where:

g is the year of the most recent past observation of rate of change in wages of health care sector staff;

b is the number of available past observations of rate of change in wages of health care sector staff;

R_{2004} is the long term nominal interest rate in year 2004;

h is the year of the most recent past observation of rate of change of pharmaceuticals' prices;

c is the number of available past observations of rate of change of pharmaceuticals' prices.

While the item in question evolves according to the presented methodology, the part of per capita cost attributable to three remaining items of spending (others than the one whose impact is analysed) evolves in line with GDP per capita rate of growth:

$$c_{g,a,j,n} = c_{g,a,j,n-1} \cdot rYpc_n \qquad [36]$$

where:

$c_{g,\,a,\,j,\,n}$ is part of cost per capita of a person of a given gender *g* and age *a* in a given year *n* of the projection period, attributable to the *other* factors, $j \in (w,\ i,\ ph,\ o)$;

$rYpc_n$ is GDP per capita rate of growth in year *n*.

4.8.4. Re-aggregation of the unit cost and calculation of the total cost

After having calculated the value of each component for each year of the projection period, the four respective components are added to obtain re-aggregated total unit cost, different for each of the three scenarios:

$$c'_{g,a,n} = \sum_{j \in (w,i,ph,o)} c_{g,a,j,n} \qquad [37]$$

$c'_{g,\,a,\,n}$ is cost per capita of a person of a given gender *g* and age *a* in a given year *n* of the projection period, adjusted for a combination of different patterns of development in spending on three components of total cost.

This total unit cost is then multiplied by the population of each gender and year of age in each year of the projection period:

$$S_{g,a,n} = c'_{g,a,n} \cdot p_{g,a,n} \qquad [38]$$

where:

$S_{g,\,a,\,n}$ is spending on health care realised by people of a given gender *g* and age *a* in a given year *n*;

$p_{g,\,a,\,n}$ is the projected population of a given gender *g* and age *a* in a given year *n*.

By adding spending for all genders and years of age total spending on health care in each year of the projection period is calculated which, may be further expressed as a share of GDP:

$$T_n = \frac{\sum_{g,a} S_{g,a,n}}{Y_n} \qquad [39]$$

where:

T_n is the share of total health care spending in GDP in a given year *n*;

Y_n is GDP in a given year *n*.

5. DATA INPUTS TO THE HEALTH CARE PROJECTIONS

5.1. Age-related expenditure profiles

Data comes from a variety of non-comparable national sources

Table 5-1 summarises the age-related expenditure profiles which have been collected through the AWG on the basis of a questionnaire circulated by DG ECFIN. The main features of the data can be summarised as follows:

- 18 Member States have provided profiles as part of the 2005 budgetary projection exercise. Most of the data reported for the 2005 budgetary projection exercise was collected since 2000;

- profiles are available for an additional 3 countries from the 2001 budgetary projection exercise but who did not report data for this projection exercise. However, this data is quite old: EL 1995, FR 1997, PT 1999;

- profiles are not available for 4 countries;

For the most part, the age-related expenditure profiles do not cover all areas of public spending on health care, but rather acute health care. More detailed information on the coverage of data is generally not available.

A breakdown of data by gender is available for all countries but MT and the UK;

The data for most countries is grouped into 5-year cohorts. Some countries have provided the data on spending disaggregated into 1-year cohorts.

When making budgetary projections based on age-related expenditure profiles, the following data has been used:

- profiles reported for the 2005 exercise have been used for 18 Member States (BE, CZ, DE, DK, ES, IT, LV, LT, LU, MT, NL, AT, PL, SI, SK, FI, SE, UK);

- profiles reported for the 2001 exercise have been used for 3 Member States (FR, EL, PT);

- for 4 countries where no profiles exist, an average EU10 or EU15 profile was used (EE, IE, CY, HU)

Table 5-1 Overview of available age-related expenditure profiles on health care

Country	Availability of data		Year when most recent data was collected	Description of data	Gender and cohort classification	Source	Data used in projection exercise
	2001	2005					
BE	yes	yes	2001	Estimates of per capita public spending on acute health care based on a sample covering most public acute care expenditures and approximately 50% of the insured population	Gender, single year of age, 5-year cohorts, decedent/survivor status	Alliance Nationale des Mutualités Chrétiennes (ANMC) and Federal Planning Bureau (FPB).	2005 national data
CZ	no	yes	2003	Average health care costs	Gender, 5-year cohorts, decedent/survivor status	General Health Insurance Company of the Czech Republic	2005 national data
DK	yes	yes	2003	Individual register-based data	Gender, single year of age, decedent/survivor status	Ministry of Finance, Denmark	2001 national data
DE	yes	no	2000	Empirical data on the breakdown of acute health care expenditure by age and sex are gathered (since 1998) for all those covered by statutory health insurance	Gender, 5-year cohorts	?	2001 national data
EE	no	no	-	-	-	-	EU10 average
EL	yes	no	1995	Annual amount of the hospital days for the people that are insured under IKA scheme used as a proxy variable for the estimation of the age-related profiles	Gender, age cohorts: 0-14, 15-19, 20-54, 55-64, 65-79, 80+	?	2001 national data

ES	yes	yes	2003	Per capita health expenditure on acute care	Gender, 5-year age cohorts	Instituto de Estudios Fiscales	2005 national data
FR	yes	no	1997	Per capita health expenditure on acute care	Gender, 10-years age cohorts	Household survey on health and health care consumption and administrative files from the three main sickness funds	2001 national data
IE	no	no	-	-	-	-	EU15 average
IT	yes	yes	2004	Public spending on acute health care divided by resident population.	Gender, 5-year age cohorts	Istat - Popolazione residente al 2004; Ministero della Salute - Rapporto annuale sulle attività di ricovero ospedaliero – 2003; et al.	2005 national data
CY	no	no	-	-	-	-	EU15 average
LV	no	yes	2003	Per capita public spending on acute health care	Gender, single year of age, 5-year cohorts	Central Statistical Bureau, Health Compulsory Insurance State Agency, Directorate of Social Services of the Ministry of Welfare, estimations of the Ministry of Finances	2005 National data
LT	no	yes	2004	Estimates of per capita public spending on acute health care	Gender, single year of age	State Patient Fund, State Social Insurance Fund Board	2005 National data
LU	no	yes	2003	Public expenditure per capita by social security and government: health insurance and accident insurance	Gender, 5-year cohorts	Inspection Générale de la Securité Sociale	2005 National data
HU	no	no	-	-	-	-	EU10 average
MT	no	yes	2003	Per capita public spending on acute health	5-year cohorts	Ministry of Health, the Elderly	2005 National data

				care		and Community Care (MHEC)	
NL	yes	yes	1999	Per capita expenditure on acute health care	Gender, single year of age	RIVM (Johan Polder)	2005 National data
AT	yes	yes	2003	Total public expenditure on acute care including: acute care in public hospitals and private hospitals; and social health insurance expenditure on physician services, dental treatment, pharmaceuticals medical appliances and other items	Gender, single year of age, 5-year age groups, decedent/survivor status	?	2005 National data
PL	no	yes	2004	Public expenditure on health care in Euro per insured person, including ambulatory specialist care, hospital care, and other items	Gender, single year of age, decedent/survivor status	National Health Fund	2005 National data
PT	yes	no	1999	Per capita health expenditure on acute care	Gender, age cohorts: 0, 1-4, 5-11, 12-19, 20-29, 30-39, 40-54, 55-64, 65-74, 75+	Gouveia, M. (2001), "Financiamento e Regras para Acordos do Ministério da Saúde com Subsistemas", Relatório Final, Centro de Estudos Aplicados, Universidade Católica Portuguesa	2001 National data
SI	no	yes	2004	Total public expenditure per capita including: primary care, specialist ambulatory care, hospital care, drugs and medical instruments, aministrative costs, sickness benefits, other expenditures, capital expenditures, other programs and spending at municipalities level	Gender, 5-year age cohorts	?	2005 National data
SK	no	yes	2004	Average annual expenditure per insured person	Gender, 5-year age cohorts	Statistical Office of the Slovak Republic	2005 National data

FI	yes	yes	2003	Per capita public spending on acute health care	Gender, 5-year age cohorts	Hujanen, Mikkola, Pekurinen, Häkkinen, Teitto (2004), "Terveydenhuollonmenot ikä- ja sukupuoliryhmittäin vuonna 2002", National research and development centre for welfare and health	2005 National data
SE	yes	yes	2003	Per capita public spending on acute health care	Gender, single year of age	?	2005 National data
UK	yes	yes	2002/03	Estimated per capita expenditure on acute health care	Age cohorts: 0-4, 5-15, 16-44, 45-64, 65-69, 70-74, 75-79, 80-84, 85+	National Health Service	2005 National data

5.2. Projected changes in life expectancy

Scenario II assesses the impact of potential changes in the health care status of elderly citizens. Changes in the health care status of the elderly over the projection time horizon will be linked to the projected changes in life expectancy by age and gender. In the *constant health* scenario (II) the age-related expenditure profile will be shifted outwards in a one-to-one proportion with the projected age and gender specific change in life expectancy.

Table 5-2 and Table 5-3 below present the projected increase in life expectancy persons at 65, 70, 75 and 80 between 2004 and 2025 and 2050 based on the baseline AWG population scenario for males and females respectively. There are significant gains in life expectancy at older ages. Not surprisingly, they are slightly higher for males than females, and also for EU10 compared with EU15 countries.

Table 5-2 Projected changes in life expectancy for elderly cohorts - *males*

Age	65				75				85			
	Life expectancy in 2004	**Change by 2025**	**Change by 2050**	***% change 2004-2050***	**Life expectancy in 2004**	**Change by 2025**	**Change by 2050**	***% change 2004-2050***	**Life expectancy in 2004**	**Change by 2025**	**Change by 2050**	***% change 2004-2050***
BE	15,8	2,8	4,5	*28,2*	9,2	1,8	2,8	*30,3*	4,7	0,6	0,9	*19,1*
CZ	13,8	2,7	4,6	*33,2*	8,2	1,7	3,0	*37,3*	4,3	0,5	1,2	*28,1*
DK	15,2	2,2	4,1	*26,8*	9,0	1,5	2,9	*32,5*	4,8	0,9	1,8	*37,9*
DE	16,1	2,3	4,0	*24,6*	9,8	1,7	2,8	*29,0*	5,4	0,7	1,2	*21,2*
EE	12,4	2,3	4,9	*39,2*	8,0	1,7	3,4	*43,0*	4,7	0,8	1,6	*33,6*
EL	16,4	1,7	3,3	*20,0*	9,6	1,1	2,2	*23,5*	4,6	0,6	1,4	*30,6*
ES	16,7	2,1	3,3	*20,0*	10,0	1,4	2,2	*21,8*	5,3	0,5	0,7	*13,7*
FR	17,0	2,2	3,6	*21,0*	10,4	1,5	2,3	*22,2*	5,4	0,4	0,6	*10,6*
IE	15,4	2,8	4,8	*31,4*	9,0	2,0	3,4	*38,5*	5,0	1,3	2,4	*47,6*
IT	16,7	2,1	3,7	*22,2*	10,0	1,3	2,4	*24,1*	5,3	0,5	1,1	*20,6*
CY	16,2	2,2	3,7	*23,1*	9,7	1,6	2,8	*28,7*	5,3	0,7	1,3	*24,3*
LV	12,3	2,6	5,1	*41,8*	7,9	2,0	3,7	*47,3*	4,5	0,9	1,6	*35,9*
LT	13,3	2,1	4,6	*34,9*	8,4	1,5	3,2	*38,5*	4,9	0,6	1,4	*27,7*
LU	15,7	2,5	4,2	*26,6*	9,4	1,6	2,8	*29,9*	4,7	0,7	1,3	*26,8*
HU	13,1	3,1	5,5	*42,4*	8,2	2,1	3,9	*47,4*	4,7	1,0	1,7	*36,6*
MT	15,2	2,4	4,0	*26,5*	9,3	1,7	2,9	*31,5*	5,1	0,7	1,4	*26,6*
NL	15,4	1,8	3,5	*22,7*	8,9	1,2	2,6	*28,7*	4,6	0,7	1,8	*38,3*
AT	16,2	2,4	4,2	*26,1*	9,6	1,7	3,1	*32,0*	4,9	0,8	1,3	*27,6*
PL	13,7	2,9	5,1	*36,8*	8,6	1,9	3,5	*40,4*	4,8	0,8	1,5	*30,4*
PT	15,6	2,5	4,3	*27,4*	9,1	1,6	2,8	*30,2*	:	:	:	*:*
SI	14,3	2,7	4,4	*31,0*	8,7	1,8	3,0	*34,6*	4,7	0,6	1,3	*27,7*
SK	12,9	2,5	4,6	*35,9*	7,9	1,5	3,0	*38,0*	4,5	0,5	1,3	*28,3*
FI	15,7	2,7	4,3	*27,2*	9,2	1,6	2,6	*28,6*	4,8	0,6	1,2	*24,3*
SE	16,7	1,9	3,3	*19,7*	9,8	1,3	2,4	*24,9*	4,8	0,6	1,4	*29,5*
UK	16,1	2,6	4,3	*26,7*	9,6	1,7	2,9	*30,3*	:	:	:	*:*
EU15*	16,0	2,3	3,9	*24,6*	9,5	1,5	2,7	*28,3*	4,9	0,7	1,3	*26,4*
EU10*	13,7	2,5	4,7	*34,0*	8,5	1,7	3,2	*38,3*	4,8	0,7	1,4	*29,8*
EU25*	15,1	2,4	4,2	*28,0*	9,1	1,6	2,9	*32,0*	4,9	0,7	1,4	*27,9*

*** unweighted average**

Table 5-3 Projected changes in life expectancy for elderly cohorts - *females*

Age	65				75				85			
	Life expectancy in 2004	Change by 2025	Change by 2050	*% change 2004-2050*	Life expectancy in 2004	Change by 2025	Change by 2050	*% change 2004-2050*	Life expectancy in 2004	Change by 2025	Change by 2050	*% change 2004-2050*
BE	19,7	2,9	4,4	*22,2*	11,8	2,2	3,3	*28,0*	5,9	1,1	1,6	*27,9*
CZ	17,0	2,3	3,9	*22,6*	9,8	1,6	2,9	*29,1*	4,9	0,8	1,5	*29,7*
DK	18,0	2,0	3,9	*21,7*	11,1	1,7	3,4	*30,7*	5,8	1,3	2,7	*45,7*
DE	19,5	2,4	3,9	*19,9*	11,8	1,8	3,0	*25,5*	6,0	0,9	1,5	*25,4*
EE	16,9	2,2	4,1	*24,1*	9,9	1,5	3,0	*30,2*	5,1	0,8	1,6	*31,6*
EL	18,5	2,0	3,8	*20,3*	10,4	1,6	3,1	*29,4*	4,7	1,1	2,0	*42,9*
ES	20,7	2,1	3,0	*14,8*	12,4	1,6	2,3	*18,6*	6,2	0,7	1,0	*16,1*
FR	21,3	2,2	3,2	*15,3*	13,1	1,7	2,5	*18,8*	6,7	0,8	1,1	*16,2*
IE	18,6	2,8	4,8	*25,9*	11,2	2,2	3,8	*33,9*	6,1	1,6	2,9	*47,3*
IT	20,6	2,0	3,5	*17,2*	12,5	1,4	2,6	*20,6*	6,4	0,6	1,2	*19,0*
CY	18,3	1,9	3,3	*18,0*	10,8	1,5	2,6	*24,5*	5,8	0,8	1,5	*25,1*
LV	16,6	2,2	4,1	*24,9*	9,7	1,7	3,2	*32,7*	5,0	0,9	1,7	*33,6*
LT	17,4	2,1	4,0	*23,0*	10,3	1,7	3,1	*30,4*	5,2	0,9	1,7	*31,9*
LU	19,6	2,3	3,8	*19,4*	11,9	1,8	3,0	*25,1*	6,3	0,9	1,6	*24,8*
HU	16,7	2,5	4,4	*26,5*	9,8	1,8	3,3	*33,8*	5,0	1,0	1,8	*34,8*
MT	18,3	2,0	3,3	*17,9*	10,9	1,5	2,5	*23,2*	5,4	0,8	1,4	*24,9*
NL	19,0	1,5	3,1	*16,3*	11,4	1,2	2,5	*21,5*	5,7	0,6	1,4	*25,3*
AT	19,7	2,5	4,0	*20,2*	11,7	1,9	3,1	*26,0*	5,8	0,9	1,4	*25,1*
PL	17,4	2,4	4,1	*23,5*	10,3	1,8	3,1	*30,4*	5,2	0,9	1,6	*31,6*
PT	19,0	2,5	4,1	*21,6*	11,1	1,8	3,1	*27,4*	:	:	:	*:*
SI	18,4	2,3	3,6	*19,6*	10,9	1,7	2,7	*25,0*	5,3	0,8	1,4	*27,2*
SK	16,5	2,2	3,9	*23,6*	9,6	1,5	2,9	*29,9*	4,9	0,7	1,4	*29,2*
FI	19,5	2,4	3,8	*19,5*	11,5	1,7	2,8	*24,1*	5,5	0,9	1,4	*25,4*
SE	19,8	1,9	3,2	*16,3*	12,0	1,4	2,6	*21,3*	5,9	0,8	1,5	*25,5*
UK	19,0	2,7	4,3	*22,6*	11,6	1,9	3,1	*26,8*	:	:	:	*:*
EU15*	19,5	2,3	3,8	*19,4*	11,7	1,7	2,9	*25,0*	5,9	0,9	1,6	*27,8*
EU10*	17,4	2,2	3,9	*22,3*	10,2	1,6	2,9	*28,8*	5,2	0,8	1,5	*29,8*
EU25*	18,6	2,2	3,8	*20,5*	11,1	1,7	2,9	*26,4*	5,6	0,9	1,6	*28,6*

*** unweighted average**

5.3. Assumptions on the evolution of unit costs

Scenario I (and most other scenarios) assumes that unit costs evolve in line with GDP per capita. Scenario V, however, assumes that unit costs evolve in line with GDP per worker. Table 5-4 and Table 5-5 below present the evolution of GDP per capita and GDP per worker that emerges from the baseline underlying assumptions endorsed by the AWG.

Table 5-4 Assumptions on the evolution of unit costs – average yearly rate of growth of GDP per capita

	2004-09	2010-19	2020-29	2030-39	2040-50
BE	2,1	1,9	1,2	1,4	1,7
CZ	3,7	3,2	2,5	1,4	1,1
DK	1,8	1,9	1,3	1,4	2,0
DE	1,6	1,8	1,0	1,2	1,6
EE	6,7	4,4	2,8	2,0	1,2
EL	2,6	1,5	1,1	1,0	1,2
ES	2,1	2,4	1,5	0,7	1,0
FR	1,7	1,6	1,5	1,4	1,6
IE	4,3	3,3	2,0	1,3	1,1
IT	1,6	1,8	1,4	0,9	1,4
CY	3,2	3,2	2,3	2,0	1,3
LV	8,6	5,2	2,9	2,0	1,0
LT	7,2	5,0	2,6	1,8	1,2
LU	3,1	2,2	2,0	2,3	2,5
HU	4,0	3,2	2,6	1,5	1,3
MT	1,3	2,1	2,4	1,9	1,4
NL	1,3	1,6	1,2	1,5	1,9
AT	2,0	1,9	1,1	1,3	1,5
PL	5,0	4,2	2,9	1,6	1,0
PT	1,5	1,8	1,4	1,1	1,2
SI	3,6	2,9	2,2	1,5	1,3
SK	4,9	4,6	2,8	1,3	0,8
FI	2,5	1,8	1,5	1,7	1,7
SE	2,5	2,3	1,8	1,6	1,8
UK	2,5	2,3	1,5	1,4	1,6

Table 5-5 Assumptions on the evolution of unit costs – average yearly rate of growth of GDP per worker

	2004-09	2010-19	2020-29	2030-39	2040-50
BE	1,5	1,9	1,8	1,7	1,7
CZ	3,4	3,3	2,9	2,1	1,8
DK	1,9	2,0	1,8	1,7	1,7
DE	0,9	1,6	1,8	1,7	1,7
EE	5,4	4,3	3,1	2,1	1,8
EL	2,1	1,4	1,6	1,7	1,7
ES	1,1	2,1	1,9	1,7	1,7
FR	1,4	1,8	1,7	1,7	1,7
IE	3,4	3,2	1,9	1,7	1,7
IT	0,8	1,7	1,8	1,7	1,7
CY	2,4	3,0	2,8	2,1	1,8
LV	6,7	5,1	3,3	2,1	1,8
LT	5,9	4,2	3,2	2,1	1,8
LU	1,9	2,1	1,8	1,7	1,7
HU	3,2	3,1	2,8	2,1	1,8
MT	1,0	1,9	2,5	2,1	1,8
NL	1,1	1,7	1,8	1,7	1,7
AT	1,5	1,8	1,8	1,7	1,7
PL	4,0	3,5	3,0	2,1	1,8
PT	1,1	2,0	1,8	1,7	1,7
SI	3,3	3,2	2,8	2,1	1,8
SK	4,0	3,7	3,0	2,1	1,8
FI	2,1	2,2	1,9	1,7	1,7
SE	2,1	2,6	2,1	1,7	1,7
UK	2,2	2,4	1,9	1,7	1,7

5.4. Additional on death related costs from academic studies

Table 5-6 summarise the general characteristics of available data, from national sources, on death related costs, and Table 5-7 provides information on ratio between cost borne by a person with *n* remaining years of life and a survivor (decomposed - where available - by gender and age cohort). The data used in the preliminary projections were taken from separate scientific papers.

Given the lack of common methodology, there are considerable differences as regards technique of measurement, the degree of precision, sample size, time and space coverage, definition of decedent and survivor status, and other characteristics. Moreover, no study provided an estimate of death-related costs covering total health care spending (inpatient care + outpatient care + day care + home care). Instead, most studies provide data only on inpatient hospital care expenditure per capita which is then taken as a proxy for total health care expenditure per capita. Differences in input data arise across countries and the following issues are worth noting:

- the data available lacks one or more dimensions. This is the case for most countries: Danish, German, Spanish, French data are not decomposed by gender, and the Swedish data is not decomposed by age cohort. Moreover, the notion a decedent differs across studies. In Spanish, Italian and Austrian data, it covers persons dying within the same year, while in the Swedish study up to six years prior to death are taken into account.

- given the purpose of the research (analysis of the ageing process and its economic consequences) the studies tend to concentrate on the elderly cohorts. In some cases (DK, FR), data is reported only for the elderly cohorts. In such cases, either younger cohorts must be omitted in the calculations, or the data concerning them must be approximated or substituted by a proxy.

- there is a clear correlation between the age and the ratio between decedents' and survivors' costs. A general trend can be observed whereby the ratio grows sharply from birth to the age of 10-20, and slowly declines thereafter. However, it is not reflected in all the studies, e.g. in the case of Sweden where one aggregate ratio is calculated for all the age cohorts. Moreover, the ratio differs considerably across the countries. Taking as an example the ratio of spending between people aged 60-65 who die within one year and the survivors of the same age, one can find as different results as: 8.0 in Denmark, 17.7 in Germany (55-64), 15.8 in Spain, 3.3 in France (55-64), 12.2 (males) and 16.9 (females) in Italy, and 20.8 (males) and 26.2 (females) in Austria. The differences are even higher when younger cohorts are compared. Such differences obviously have a large impact on the results of the projections and must be taken into account when comparing them.

Table 5-6 Overview of studies with data on death-related costs for particular EU Member States

	Reference	Measured value	Data source	Status distinguished	Age groups	Gender
DK	Madsen M. (2004), *Methodologies to incorporate 'death-related' costs in projections of health and long-term care based on Danish data*, Ministry of Finance, Denmark	Average expenditures on hospitals distributed by age and years of remaining life	Danish individual register-based data	Persons with 0-1 years of remaining life; persons with 1-2 years of remaining life; persons with 2-3 years of remaining life; persons with 3+ years of remaining life	50-59; 60-69; 70-79; 80-89; 90+; all age groups	No
DE	Busse R., Krauth C., Schwartz F. (2002), *Use of acute Hospital Beds does not increase as the Population Ages: Results for a Seven Year Cohort Study in Germany*, Journal of Epidemiology and Community Health, vol. 56, pp. 289-293.	Average number of hospital days/ year according to survival status	Cohort study using a sample of persons insured by a sickness fund, Germany, 1989–1995	Survivors; persons in their 3rd last year of life; persons in their 2nd last year of life; persons in their last year of life	0–24; 25–34; 35–44; 45–54; 55–64; 65–74; 75–84; 85+	No
ES	Ahn N., García J.R., Hercé J.A. (2005), *Demographic Uncertainty and Health Care Expenditure in Spain*, FEDEA, Documento de trabajo 2005-07	Public Hospital Care Costs by Survival Status	Individual register-based data, Spain, 1999	Decedents, survivors	5-year cohorts from 1-85, 86+	No
FR	Caisse Nationale de l'Assurance Maladie des Travailleurs Salariés (2003), *Le vieillissement de la population et son incidence sur l'évolution des dépenses de santé*, Point de conjoncture n°15 - juillet 2003	Average medical consumption of persons in their last years of life by age at death (approximate values, precise data not quoted in the article)	Sample of individuals insured by a social insurance fund, 1996-2002	Persons in their last year of life; persons 1 year before death; persons 2 years before death; persons 3 years before death; persons 4 years before death	35-44; 45-54; 55-64; 65-74; 75-84; 85+	No
IT	Gabriele S., Cislaghi C., Costantini F., Innocenti F., Lepore V., Tediosi F., Valerio M., Zocchetti C. (2005), *Demographic factors and health expenditure profiles by*	Per capita hospital expenditure ratio deceased/survivors by age and gender	Individual register-based data from four Italian regions: Lombardy,	Decedents (within one calendar year); survivors	5-year cohorts from1-89, 90+	Yes

	age: the case of Italy. A deliverable for the ENEPRI AHEAD (Ageing, Health Status and Determinants of Health Expenditure) project		Tuscany, Apulia and Abruzzi, 2000			
AT	Riedel M., Hofmarcher M.M., Buchegger R., Brunner J. (2002), *Nachfragemodell Gesundheitswesen. Endbericht, Teil II*. Studie im Auftrag des Bundesministeriums für Soziale Sicherheit und Generationen, Institut für Höhere Studien (IHS), Wien	Average expenditure on hospital care under assumption that expenditure on all fatal cases is the same as in hospital care	Sample of individuals insured by a social insurance fund, 2000	Decedents, survivors	5 year cohorts from 1-84; 85+	Yes
SE	Batljan I., Lagergren M. (2004), *Inpatient/outpatient health care costs and remaining years of life – effect of decreasing mortality on future acute health care demand*, Social Science & Medicine, 59, pp.2459-2466	Average per capita cost of inpatient health care per capita in the population depending on remaining years of life (approximate values, precise data not quoted in the article)	Individual register-based data from the Skåne region, 1997	0, 1, 2, 3, 4, 5, 6, 6+ remaining years of life, whole population	None	Yes

Table 5-7 The ratio between cost borne by a person with *N* remaining years of life and a survivor, by age cohort

Denmark

Age cohort \ *N*	0-1	1-2	2-3	3+
0-49[1]	42,6	26,6	22,0	1
50-59	10,6	6,7	5,5	1
60-69	8,0	4,3	3,4	1
70-79	4,8	2,7	2,0	1
80-89	2,4	1,9	1,6	1
90+	1,8	1,7	1,0	1

Germany

Age cohort \ *N*	0	1	2	2+
0-24	30,3	14,0	11,6	1
25-34	31,8	13,3	14,9	1
35-44	31,6	20,5	12,5	1
45-54	20,6	8,2	5,8	1
55-64	17,7	5,4	3,0	1
65-74	12,1	4,1	3,0	1
75-84	6,6	2,4	1,8	1
85+	4,3	1,2	0,9	1

Spain

Age cohort \ *N*	0	0+
0	7,6	1
1-5	71,1	1
6-10	82,1	1
11-15	92,7	1
16-20	96,5	1
21-25	75,6	1
26-30	48,9	1
31-35	40,7	1
36-40	43,7	1
41-45	43,5	1
46-50	35,0	1
51-55	26,9	1
56-60	21,7	1
61-65	15,8	1
66-70	11,9	1
71-75	9,4	1
76-80	7,4	1
81-85	6,3	1
86+	5,0	1

France

Age cohort	*N*	0	1	2	3	3+
0-34[2]		6,5	5,5	3,0	2,0	1
35-44		6,5	5,5	3,0	2,0	1
45-54		8,8	6,8	2,5	1,5	1
55-64		3,3	2,3	1,5	1,0	1
65-74		2,6	2,3	1,3	1,0	1
75-84		2,8	2,4	1,5	1,2	1
85+		1,8	1,7	1,2	1,0	1

Italy

		males		females	
Age cohort	*N*	0	0+	0	0+
0[3]		67,0	1	84,9	1
1-4		67,0	1	84,9	1
5-9		78,6	1	159,1	1
10-14		70,9	1	108,4	1
15-19		40,5	1	46,3	1
20-24		26,4	1	33,8	1
25-29		29,9	1	26,5	1
30-34		30,9	1	27,6	1
35-39		40,8	1	37,9	1
40-44		35,6	1	41,9	1
45-49		31,7	1	32,3	1
50-54		21,4	1	27,5	1
55-59		17,2	1	24,0	1
60-64		12,2	1	16,9	1
65-69		8,5	1	12,1	1
70-74		6,2	1	8,3	1
75-79		4,5	1	5,4	1
80-84		3,3	1	3,7	1
85-89		2,4	1	2,6	1
90+		1,7	1	1,6	1

Austria

		males		females	
Age cohort	*N*	0	0+	0	0+
0-4		50,9	1	67,0	1
5-9		156,6	1	240,0	1
10-14		173,9	1	205,1	1
15-19		135,2	1	113,1	1
20-24		136,6	1	77,2	1
25-29		131,9	1	63,1	1
30-34		128,1	1	70,5	1

35-39	103,2	1	84,4	1
40-44	77,7	1	59,7	1
45-49	48,1	1	52,1	1
50-54	32,4	1	35,0	1
55-59	25,6	1	30,0	1
60-64	20,8	1	26,2	1
65-69	13,6	1	17,1	1
70-74	10,5	1	11,8	1
75-79	7,8	1	8,6	1
80-84	6,7	1	7,2	1
85+	6,2	1	5,4	1

Sweden

N	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**6+**
All age cohorts - males	15,86	10,14	6,00	4,57	4,14	3,29	2,71	1
All age cohorts - females	13,71	9,57	6,00	4,71	4,00	3,14	2,57	1

Note: DK Cost per capita of decedents (0-1, 1-2, 2-3 remaining years of life) and survivors (more than 3 remaining years of life) aged 0-49 is missing in the database. It is therefore assumed to be twice the cost of a decedent aged 50-59 and half the cost of a survivor aged 50-59. FR Cost per capita of people aged 0-34 is missing in the database. It is therefore assumed to be the same as the cost per capita of people aged 35-44. IT Cost per capita of people aged 0 is missing in the database. It is therefore assumed to be the same as the cost per capita of people aged 1-4.

6. ADDITIONAL SCENARIOS FOR PUBLIC SPENDING ON HEALTH CARE

Table 6-1 presents the overview of additional scenarios (sensitivity tests) that complement the analysis of factors affecting public health care spending presented in section 4.4 of the report.

Table 6-1 Overview of additional scenarios for public spending on health care

	High life expectancy	**Improved health**	**EU10 cost convergence**	**Fast cost growth**	**Extrapolation of costs for each component on health spending**
	A-I	***A-II***	***A-III***	***A-IV***	***A-V***
Population projection	*AWG scenario - high life expectancy*	AWG scenario - baseline	AWG scenario - baseline	AWG scenario - baseline	AWG scenario - baseline
Age-related expenditure profiles	2004 profiles held constant over projection period	*Improved health scenario whereby 2004 age profile shifts by double the change in age-specific life expectancy*	*For EU10, the 2004 profiles converge to average age-profile for EU15 countries by 2050*	2004 profiles held constant over projection period	2004 profiles held constant over projection period
Unit cost development	GDP per capita	GDP per capita	GDP per capita	*GDP per capita + 1 p.p. during the period 2004 to 2015*	*Different assumptions for each component of spending (wages, pharmaceuticals, capital investment)*
Income elasticity of demand	1	1	1	1	1

6.1. High life expectancy scenario

Scenario A-I examines the impact of ***higher life expectancy*** on health care spending. It is based on the same assumptions as the pure ageing scenario (I) presented in chapter 4 of the report, except that it uses the high life expectancy population projection rather than AWG population scenario: for more details, see chapter 2 in EPC and European Commission (2005a).

On average, public expenditure on health care is projected to increase by 2% of GDP over the period 2004-2050. This increase is somewhat (0.3% of GDP) stronger than in *pure ageing* scenario in all but one (LU) country. Such results show clearly that the demographic effect of higher life expectancy, whereby people live longer and therefore require more health care services outweighs the economic effect, whereby GDP increases faster and the share of health care spending in GDP automatically falls.

Table 6-2 Projection results for *high life expectancy* scenario (A-I)

	Projected spending as % of GDP					Difference as % of GDP compared to pure ageing scenario		
	2004	2010	2030	2050	change 2004-2050	2010	2030	2050
BE	6,2	6,4	7,3	8,0	*1,8*	0,0	0,1	0,3
DK	6,9	7,0	7,8	8,2	*1,4*	0,0	0,1	0,2
DE	6,0	6,3	7,1	7,7	*1,7*	0,0	0,2	0,4
GR	5,1	5,3	6,0	7,2	*2,1*	0,0	0,1	0,3
ES	6,1	6,3	7,4	8,6	*2,5*	0,0	0,1	0,3
FR	7,7	8,0	9,1	9,8	*2,1*	0,0	0,1	0,3
IE	5,3	5,5	6,5	7,5	*2,2*	0,0	0,1	0,2
IT	5,8	6,0	6,8	7,4	*1,6*	0,0	0,1	0,2
LU	5,1	5,3	5,9	5,5	*0,4*	0,1	0,1	-0,7
NL	6,1	6,3	7,2	7,7	*1,6*	0,0	0,1	0,2
AT	5,3	5,5	6,4	7,2	*1,9*	0,0	0,1	0,2
PT	6,7	6,8	6,7	7,5	*0,8*	0,0	0,1	0,2
FI	5,6	5,8	6,8	7,3	*1,8*	0,0	0,1	0,3
SE	6,7	6,8	7,6	8,0	*1,3*	0,0	0,1	0,2
UK	7,0	7,2	8,4	9,7	*2,6*	0,0	0,1	0,4
CY	2,9	3,1	3,6	4,1	*1,2*	0,0	0,0	0,1
CZ	6,4	6,7	7,8	8,6	*2,1*	0,0	0,1	0,3
EE	5,4	5,6	6,1	6,5	*1,1*	0,0	0,1	0,2
HU	5,5	5,7	6,3	6,7	*1,2*	0,0	0,1	0,2
LT	3,7	3,8	4,2	4,5	*0,8*	0,0	0,0	0,1
LV	5,1	5,3	5,7	6,1	*0,9*	0,0	0,1	0,2
MT	4,2	4,5	5,7	6,5	*2,3*	0,0	0,1	0,3
PL	4,1	4,3	5,0	5,5	*1,4*	0,0	0,1	0,2
SK	4,4	4,6	5,6	6,3	*2,0*	0,0	0,1	0,2
SI	6,4	6,6	7,5	8,1	*1,6*	0,0	0,1	0,2
EU25	*6,4*	*6,6*	*7,5*	*8,4*	*2,0*	*0,0*	*0,1*	*0,3*
EU15	*6,4*	*6,7*	*7,6*	*8,5*	*2,0*	*0,0*	*0,1*	*0,3*
EU12	*6,3*	*6,5*	*7,4*	*8,2*	*1,9*	*0,0*	*0,1*	*0,3*
EU10	*4,9*	*5,1*	*5,8*	*6,3*	*1,4*	*0,0*	*0,1*	*0,2*

Note: EU25, EU15, EU12 and EU10 – average weighted by GDP

6.2. Improved health scenario

Scenario A-II is labelled the *improved health* scenario and is inspired by the compression of morbidity hypothesis. It assumes that the number of years spent in bad health during a life time in 2050 actually falls compared to that in 2004, i.e. it involves a shortening of the share of one's lifespan spent in bad health, so that the morbidity rate falls faster than the mortality rate. The future gains in healthy life expectancy exceed the projected gains total life expectancy. The stylised picture of such process is achieved by progressively shifting the age-related expenditure profile of the base year along the age axis by more (by a stylised factor) than the projected gains in age and gender specific life expectancy. It is illustrated by dotted line on graph 4-1 in section 4.2 of the report.

Table 6-3 presents the projection results. If healthy life expectancy is assumed to increase twice as fast as total life expectancy, practically all the effects of an ageing population on public spending will be offset by positive developments in health status. Public health care spending is projected to increase by mere 0.3% of GDP in EU15 countries and remain broadly constant in the EU10 countries.

Table 6-3 Projection results for *improved health* scenario (A-II)

	Projected spending as % of GDP					Difference as % of GDP compared to pure ageing scenario		
	2004	2010	2030	2050	change 2004-2050	2010	2030	2050
BE	6,2	6,1	6,1	6,3	*0,1*	-0,3	-1,2	-1,4
DK	6,9	6,7	6,6	6,4	*-0,4*	-0,3	-1,1	-1,5
DE	6,0	6,0	6,0	6,1	*0,1*	-0,3	-1,0	-1,2
GR	5,1	5,2	5,2	5,8	*0,7*	-0,2	-0,8	-1,2
ES	6,1	6,0	6,3	7,1	*1,0*	-0,3	-1,0	-1,2
FR	7,7	7,7	7,9	8,2	*0,5*	-0,3	-1,1	-1,4
IE	5,3	5,2	5,3	5,7	*0,4*	-0,3	-1,1	-1,5
IT	5,8	5,7	5,9	6,1	*0,4*	-0,2	-0,8	-1,0
LU	5,1	5,0	5,0	5,1	*0,0*	-0,2	-0,8	-1,0
NL	6,1	6,1	6,4	6,4	*0,3*	-0,1	-0,7	-1,0
AT	5,3	5,2	5,4	5,7	*0,4*	-0,3	-1,0	-1,3
PT	6,7	6,5	5,7	6,0	*-0,7*	-0,3	-0,9	-1,3
FI	5,6	5,5	5,8	5,9	*0,4*	-0,2	-0,9	-1,1
SE	6,7	6,5	6,5	6,4	*-0,3*	-0,3	-1,0	-1,4
UK	7,0	6,8	6,8	7,2	*0,2*	-0,4	-1,5	-2,1
CY	2,9	2,9	3,1	3,3	*0,4*	-0,1	-0,4	-0,7
CZ	6,4	6,4	6,5	6,7	*0,3*	-0,3	-1,2	-1,6
EE	5,4	5,5	5,1	5,1	*-0,3*	-0,1	-0,8	-1,2
HU	5,5	5,4	5,2	5,2	*-0,3*	-0,2	-1,0	-1,3
LT	3,7	3,8	3,7	3,7	*0,0*	-0,1	-0,5	-0,7
LV	5,1	5,2	4,9	4,9	*-0,3*	-0,1	-0,7	-1,0
MT	4,2	4,3	4,7	4,8	*0,6*	-0,3	-0,9	-1,4
PL	4,1	4,1	4,2	4,3	*0,2*	-0,2	-0,8	-1,1
SK	4,4	4,4	4,6	4,9	*0,5*	-0,2	-0,9	-1,2
SI	6,4	6,5	6,7	6,9	*0,5*	-0,2	-0,7	-0,9
EU25	*6,4*	*6,3*	*6,4*	*6,7*	*0,3*	*-0,3*	*-1,1*	*-1,4*
EU15	*6,4*	*6,4*	*6,5*	*6,8*	*0,3*	*-0,3*	*-1,1*	*-1,4*
EU12	*6,3*	*6,3*	*6,4*	*6,7*	*0,4*	*-0,3*	*-1,0*	*-1,2*
EU10	*4,9*	*4,9*	*4,8*	*5,0*	*0,0*	*-0,2*	*-0,9*	*-1,2*

Note: EU25, EU15, EU12 and EU10 – average weighted by GDP

6.3. EU10 cost convergence

Scenario A-III only covers the EU10 countries (excluding CY and MT)[5] and is meant to capture the possible effect of a ***convergence in real living standards*** (which emerges from the macroeconomic assumptions described in section 2.2 and 2.3) on health care spending. Spending on health care in EU10 (both in nominal terms and as a % of GDP per capita) is well below the levels observed in EU15 countries. By taking the flatter 2004 age-related expenditure profiles as the basis of the health care projections, the projected budgetary impact of ageing will be less evident in the EU10 countries compared to EU15. Scenario A-III assumes that the average age-related expenditure of EU10 countries in the base year 2004 progressively shifts to the average age-related expenditure profile of EU15 countries by 2050.

Table 6-4 presents the projection results. As expected, this scenario would result in a strong convergence in spending on health care as a share of GDP towards the levels observed in the EU15 countries. Average health care spending of the eight EU10 countries would reach 6.7% of GDP in 2050, which is closer to the EU15 average of 8.2% of GDP compared with the projected level of 6.1% of GDP which emerges on the basis of their flatter national age-related expenditure profiles (see graph 4-3 in section 4.2 of the report). On average, spending on health care is projected to increase by 1.7 p.p. of GDP above what is projected using

[5] As shown on graph 4-2 in section 4.2 of the report, the shape of Maltese age-related expenditure profile is more similar to EU15 than EU10 countries. Consequently, Malta and Cyprus (whose age profile has not been provided) are not included in this simulation.

national age-related expenditure profiles, with most of the increase occurring at the end of the projection period. This result suggests that effective managing of expectations regarding health care services in EU10 could play a significant role in controlling health care spending in these countries.

Table 6-4 Projection results for the *EU10 cost convergence* scenario (A-III)

	Projected spending as % of GDP					Difference as % of GDP compared to pure ageing scenario		
	2004	2010	2030	2050	*change 2004-2050*	2010	2030	2050
CZ	6,4	6,7	7,8	8,8	*2,4*	0,0	0,0	0,5
EE	5,4	5,6	6,1	6,8	*1,4*	0,0	0,2	0,5
HU	5,5	5,7	6,4	7,1	*1,6*	0,0	0,2	0,6
LT	3,7	3,9	4,3	4,9	*1,2*	0,0	0,2	0,6
LV	5,1	5,3	5,8	6,5	*1,4*	0,0	0,2	0,6
PL	4,1	4,3	5,1	5,8	*1,7*	0,0	0,1	0,4
SK	4,4	4,6	5,4	6,3	*1,9*	-0,1	-0,1	0,1
SI	6,4	6,8	8,1	9,3	*2,8*	0,1	0,7	1,4
Weighted average	*5,0*	*5,1*	*5,9*	*6,7*	*1,7*	*0,0*	*0,1*	*0,5*

Note: Average weighted by GDP

6.4. Fast cost growth scenarios

Scenario A-IV focuses on ***unit costs***. Public spending on health care depends not only on demographic and health factors driving demand, but also on the supply side factors. Public spending on health care includes inputs such as salaries/wages (from highly educated to unskilled people), investment in capital which is subject of various depreciation schedules (from slowly depreciating buildings and transport infrastructure to fast developing modern IT and medical technologies) and pharmaceuticals. The evolution of total health care spending is in part driven by the evolution of prices for these inputs relative to the evolution of prices for the economy as a whole. In considering the evolution of prices and unit costs for these items, it is important to bear in mind that the health care sector is highly regulated and only to a limited extent subject to the free market competition. For example, pharmaceutical prices are often subject to administrative regulation, and wage developments of health care staff in the public sector may be subject to specific wage bargaining arrangements.

Scenario A-IV is run for all 25 Member States based on an assumption of the ***fast evolution of unit costs in the entire health care sector***. The methodology is identical to the *pure ageing* scenario (I). The only difference concerns evolution of unit costs, which are no longer assumed to evolve in line with GDP per capita. Instead, they are assumed to grow by 1 percentage point above GDP per capita for the first ten years of the projection exercise (2005-14) and thereafter, between 2015 and 2050, again according to the 'normal' GDP per capita growth rate.

Table 6-5 presents the results for the fast cost growth scenario. Health care spending does appear to be sensitive as regards the assumptions on unit costs. Assuming costs grow by 1 p.p. above GDP per capita, public sending on health care is projected to increase by an additional average of 0.8% of GDP in the EU15 and 0.6% in the EU10.

Table 6-5 Projection results for *fast growth* scenario (A-IV) – unit costs evolve 1% faster than GDP per capita between 2005 and 2014

	Projected spending as % of GDP					Difference as % of GDP compared to pure ageing scenario		
	2004	2010	2030	2050	*change 2004-2050*	2010	2030	2050
BE	6,2	6,8	8,0	8,5	*2,3*	0,4	0,7	0,8
DK	6,9	7,4	8,5	8,8	*1,9*	0,4	0,8	0,8
DE	6,0	6,7	7,7	8,1	*2,1*	0,4	0,7	0,8
GR	5,1	5,7	6,5	7,6	*2,5*	0,3	0,6	0,7
ES	6,1	6,7	8,0	9,2	*3,1*	0,4	0,7	0,9
FR	7,7	8,5	9,9	10,5	*2,8*	0,5	0,9	1,0
IE	5,3	5,8	7,0	8,0	*2,7*	0,3	0,6	0,7
IT	5,8	6,3	7,4	7,9	*2,1*	0,4	0,7	0,7
LU	5,1	5,6	6,4	6,8	*1,7*	0,3	0,6	0,6
NL	6,1	6,6	7,8	8,2	*2,1*	0,4	0,7	0,8
AT	5,3	5,8	7,0	7,7	*2,4*	0,3	0,6	0,7
PT	6,7	7,2	7,4	8,0	*1,3*	0,4	0,7	0,7
FI	5,6	6,1	7,3	7,8	*2,2*	0,3	0,7	0,7
SE	6,7	7,2	8,2	8,6	*1,8*	0,4	0,8	0,8
UK	7,0	7,6	9,2	10,2	*3,2*	0,4	0,8	0,9
CY	2,9	3,2	3,9	4,4	*1,5*	0,2	0,4	0,4
CZ	6,4	7,1	8,5	9,2	*2,7*	0,4	0,8	0,8
EE	5,4	5,9	6,6	6,9	*1,5*	0,3	0,6	0,6
HU	5,5	6,0	6,8	7,2	*1,7*	0,3	0,6	0,7
LT	3,7	4,1	4,5	4,8	*1,1*	0,2	0,4	0,4
LV	5,1	5,6	6,1	6,5	*1,3*	0,3	0,5	0,6
MT	4,2	4,8	6,2	6,8	*2,6*	0,3	0,6	0,6
PL	4,1	4,6	5,5	5,9	*1,8*	0,3	0,5	0,5
SK	4,4	4,9	6,1	6,8	*2,4*	0,3	0,5	0,6
SI	6,4	7,0	8,2	8,6	*2,2*	0,4	0,7	0,8
EU25	*6,4*	*7,0*	*8,2*	*8,9*	*2,5*	*0,4*	*0,8*	*0,8*
EU15	*6,4*	*7,1*	*8,3*	*9,0*	*2,6*	*0,4*	*0,8*	*0,8*
EU12	*6,3*	*6,9*	*8,1*	*8,7*	*2,4*	*0,4*	*0,8*	*0,8*
EU10	*4,9*	*5,4*	*6,3*	*6,7*	*1,8*	*0,3*	*0,6*	*0,6*

Note: EU25, EU15, EU12 and EU10 – average weighted by GDP

6.5. Extrapolation of costs scenarios

Scenario A-V is run for twelve Member States for which sufficient information is available on the share in total health expenditure of different components (i.e. wages/salaries, capital investment, pharmaceuticals and other items) and on the ***evolution of unit costs for each of these components***. Budgetary projection are run for each component of health care spending under two settings:

- a *fast growth* variant where unit costs grow by 1 percentage point above GDP per capita for the first ten years of the projection exercise (2005-14) and thereafter in line with GDP per capita until 2050;

- an *extrapolation of past trends* variant where in the base year unit costs grow in line with the annual average growth rate observed in recent years, then during first ten years of the projection exercise (2005-14) converges to GDP per capita rate of growth, and continues evolving at this rate until 2050.

Table 6-6 provides a summary of the available data on the composition of health care spending, and on the recent evolution of unit costs. Twelve Member States (BE, ES, IE, IT, PT, SE, CZ, CY, LV, LT, MT, PL) provided data to the AWG which allows to split total spending on health care into at least three different components. For six other countries (DK,

GR, NL, EE, HU, SI), similar data is available in the international WHO database[6]. A word of caution is warranted, and the data used differs considerably among the Member States.

Table 6-6 also reports the assumptions which have been used in the *extrapolation* variant of scenario A-V as regards the recent evolution of unit costs for each component of health care spending. In brief, the growth of spending on wages and salaries in the health care sector in the base year 2004 is based on recent developments of gap between growth rate of wages in the health care sector and in the whole economy reported in the OECD STAN database. The rate of growth of investment spending in 2004 is assumed to equal long term nominal interest rates in the economy in the base year, whose values have been taken from internal DG ECFIN databases. Initial rate of growth of pharmaceutical spending is assumed to equal price index of pharmaceuticals based on the average price index of pharmaceuticals in the recent years provided by twelve Member States (GR, ES, FR, IE, IT, PT, SE, UK, CY, LV, LT, PL): for the other countries the data has been taken from the WHO European health for all database.

Fast growth variant of scenario A-V has not been run for DE, FR, LU, AT, FI, UK, SK due to insufficient information on the composition of health care spending. *Extrapolation* variant has not been run for the same countries as above plus EE, CY, LV, LT, MT, SI for which no data on the recent development in wages and salaries in the health care sector is available. For CZ and HU price index of pharmaceuticals in the first ten years of projection period has been substituted with GDP per capita rate of growth.

[6] European health for all database (HFA-DB), World Health Organization Regional Office for Europe.

Table 6-6 Available data on the composition of health care spending and on the recent evolution of unit costs

	share of respective components in total public health care spending in %				initial rate of change in %		
	spending on wages and salaries	investment spending	pharmaceutical spending	others**	spending on wages and salaries	investment spending	pharmaceutical spending
BE	41	0	20	40	2,0	4,2	3,1
DK	68	3	5	24	3,1	4,3	-1,2
GR	30	2	22	46	6,5	4,3	0,3
ES	62	3	22	13	3,1	4,1	0,8
IE	66	5	11	18	6,6	4,1	3,9
IT	36	3	15	46	3,8	4,3	-0,1
NL	59	0	11	30	0,7	4,1	-0,3
PT	35	3	9	53	3,4	4,1	0,4
SE	56	3	7	34	2,7	4,4	1,9
CY	44	11	15	30	:	5,8	5,2
CZ	18	5	20	57	3,8	4,8	3,0*
EE	37	3	14	45	:	4,4	:
HU	32	9	23	37	6,9	8,2	4,1*
LT	43	0	17	40	:	4,5	6,9
LV	39	2	9	50	:	4,9	8,3
MT	41	32	24	3	:	4,7	:
PL	29	0	17	55	1,9	6,9	7,5
SI	44	1	14	41	:	4,7	:

*due to lack of data on recent pharmaceutical price developments, GDP per capita rate of growth has been applied
** item 'others' calculated as complement to 100% of three other items
Source: national sources (columns 1-3 and 7), European health for all database (HFA-DB), World Health Organisation Regional Office for Europe (columns 1-3 and 7, where national data not available), OECD STAN database (column 5), ECFIN database (column 6), own calculations (column 4)

Table 6-7 and Table 6-8 present the results for the scenarios which are based on the decomposition of total health care spending into four different components, using the data presented in Table 6-6. They show how much total health care spending will change as a result of different assumptions on the initial growth rate of unit cost of respective components of health care spending. Table 6-7 presents the effect of applying to each respective component rate of growth 1 p.p. above GDP per capita during first ten years of projection period. Table 6-8 presents the results of the scenario which is an attempt to capture current trends in the health care costs, by applying current growth rates in unitary costs of each component of health care.

Unsurprisingly, total spending on health care is the most sensitive to changes in the assumptions concerning the growth rate of wages and salaries. As shown in the left panel of Table 6-7, 1% faster growth during first ten years of the projection period is expected to add by 2050 an extra 0.2-0.5% of GDP to total expenditure projected under *pure ageing* scenario. The same change in the rate of growth of pharmaceutical spending is expected to add only 0.1-0.2% of GDP (see central panel of Table 6-7), whereas practically no effect is expected of the similar change in the rate of change of investment spending (see right panel of Table 6-7).

The effect of changes in the growth rate of wages and salaries on total spending is also the strongest in case of *extrapolation* variant (see Table 6-8). However, given different current developments in the unit costs results vary considerably across countries. Applying current growth rates of wages adds an extra 0.2-0.5% of GDP to the increase projected under *pure ageing* scenario in seven countries for which projections can be run (EL, IE, DK, ES, IT, HU, PT). It is the consequence of fast growth in wages and salaries in health care sector as compared to the general economic developments. At the same time, other five countries (PL, NL, BE, SE, CZ) may expect slower or similar growth in health care expenditure as compared

to pure demographic scenario, as their current growth rates of wages are lower than GDP per capita.

Using current price index of pharmaceuticals as a driver of pharmaceutical spending over the first ten years of projection period results in a slight decrease in total spending as compared to the *pure ageing* scenario. In six countries expenditure is projected to grow by less than when spending develops in line with GDP per capita, four should not expect a significant difference, and in two (BE, PL) price developments are projected to contribute to higher grow in health care spending.

As in case of the *fast growth* variant, changes in the rate of change of investment spending have practically no impact on total health care spending – due to the very small share of public expenditure devoted to this item.

Table 6-7 Projection results for scenario A-V, *fast cost growth* variant (respective components increasing 1 p.p. above GDP per capita between 2005 and 2014)

	Wages*						Investment spending*					Pharmaceutical spending*				
	Projected spending as % of GDP				Difference as % of GDP compared to pure ageing scenario		Projected spending as % of GDP			Difference as % of GDP compared to pure ageing scenario		Projected spending as % of GDP			Difference as % of GDP compared to pure ageing scenario	
				change					change					change		
	2004	2030	2050	2004-2050	2030	2050	2030	2050	2004-2050	2030	2050	2030	2050	2004-2050	2030	2050
BE	6,2	7,6	8,1	***1,9***	*0,3*	*0,3*	7,3	7,7	***1,5***	*0,0*	*0,0*	7,4	7,9	***1,7***	*0,1*	*0,2*
DK	6,9	8,3	8,5	***1,7***	*0,5*	*0,6*	7,8	8,0	***1,1***	*0,0*	*0,0*	7,8	8,0	***1,2***	*0,0*	*0,0*
GR	5,1	6,1	7,1	***2,0***	*0,2*	*0,2*	5,9	6,9	***1,8***	*0,0*	*0,0*	6,1	7,1	***2,0***	*0,1*	*0,2*
ES	6,1	7,7	8,9	***2,7***	*0,5*	*0,5*	7,3	8,4	***2,3***	*0,0*	*0,0*	7,4	8,5	***2,4***	*0,2*	*0,2*
IE	5,3	6,8	7,7	***2,4***	*0,4*	*0,5*	6,4	7,3	***2,0***	*0,0*	*0,0*	6,5	7,3	***2,0***	*0,1*	*0,1*
IT	5,8	6,9	7,4	***1,6***	*0,3*	*0,3*	6,7	7,2	***1,4***	*0,0*	*0,0*	6,8	7,3	***1,5***	*0,1*	*0,1*
NL	6,1	7,5	7,9	***1,8***	*0,4*	*0,5*	7,1	7,4	***1,3***	*0,0*	*0,0*	7,2	7,5	***1,4***	*0,1*	*0,1*
PT	6,7	6,9	7,5	***0,8***	*0,2*	*0,3*	6,7	7,3	***0,6***	*0,0*	*0,0*	6,7	7,3	***0,6***	*0,1*	*0,1*
SE	6,7	7,9	8,2	***1,5***	*0,4*	*0,4*	7,5	7,8	***1,1***	*0,0*	*0,0*	7,5	7,8	***1,1***	*0,1*	*0,1*
CY	2,9	3,7	4,2	***1,3***	*0,2*	*0,2*	3,6	4,0	***1,1***	*0,0*	*0,0*	3,6	4,0	***1,1***	*0,1*	*0,1*
CZ	6,4	7,9	8,5	***2,0***	*0,1*	*0,2*	7,8	8,4	***1,9***	*0,0*	*0,0*	7,9	8,5	***2,1***	*0,2*	*0,2*
EE	5,4	6,2	6,6	***1,1***	*0,2*	*0,2*	6,0	6,3	***0,9***	*0,0*	*0,0*	6,0	6,4	***1,0***	*0,1*	*0,1*
HU	5,5	6,4	6,7	***1,2***	*0,2*	*0,2*	6,2	6,6	***1,1***	*0,1*	*0,1*	6,3	6,7	***1,2***	*0,1*	*0,1*
LT	3,7	4,3	4,5	***0,8***	*0,2*	*0,2*	4,1	4,4	***0,7***	*0,0*	*0,0*	4,2	4,4	***0,7***	*0,1*	*0,1*
LV	5,1	5,8	6,1	***1,0***	*0,2*	*0,2*	5,6	5,9	***0,8***	*0,0*	*0,0*	5,6	5,9	***0,8***	*0,0*	*0,1*
MT	4,2	5,8	6,4	***2,2***	*0,2*	*0,3*	5,8	6,4	***2,2***	*0,2*	*0,2*	5,7	6,3	***2,1***	*0,1*	*0,2*
PL	4,1	5,1	5,5	***1,4***	*0,1*	*0,2*	5,0	5,4	***1,3***	*0,0*	*0,0*	5,1	5,5	***1,4***	*0,1*	*0,1*
SI	6,4	7,7	8,2	***1,7***	*0,3*	*0,3*	7,4	7,9	***1,4***	*0,0*	*0,0*	7,5	8,0	***1,5***	*0,1*	*0,1*

***** component increasing 1 p.p. faster than GDP per capita between 2005 and 2014 and in line with GDP per capita thereafter. Other components evolve in line with GDP per capita over the entire projection period

Table 6-8 Projection results for scenario A-V, *extrapolation of past trends* variant (respective components following past trends between 2005 and 2014)

	Wages*						Investment spending*					Pharmaceutical spending*				
	Projected spending as % of GDP				Difference as % of GDP compared to pure ageing scenario		Projected spending as % of GDP			Difference as % of GDP compared to pure ageing scenario		Projected spending as % of GDP			Difference as % of GDP compared to pure ageing scenario	
				change					change					change		
	2004	2030	2050	2004-2050	2030	2050	2030	2050	2004-2050	2030	2050	2030	2050	2004-2050	2030	2050
BE	6,2	7,2	7,7	***1,5***	*-0,1*	*-0,1*	7,3	7,7	***1,5***	*0,0*	*0,0*	7,3	7,8	***1,6***	*0,0*	*0,1*
DK	6,9	8,1	8,3	***1,5***	*0,4*	*0,4*	7,8	8,0	***1,1***	*0,0*	*0,0*	7,7	7,9	***1,0***	*-0,1*	*-0,1*
GR	5,1	6,3	7,4	***2,3***	*0,4*	*0,5*	5,9	6,9	***1,8***	*0,0*	*0,0*	5,8	6,7	***1,6***	*-0,1*	*-0,2*
ES	6,1	7,5	8,6	***2,5***	*0,2*	*0,3*	7,3	8,4	***2,3***	*0,0*	*0,0*	7,2	8,2	***2,1***	*-0,1*	*-0,1*
IE	5,3	6,8	7,8	***2,5***	*0,5*	*0,5*	6,4	7,2	***2,0***	*0,0*	*0,0*	6,4	7,2	***1,9***	*0,0*	*0,0*
IT	5,8	7,0	7,5	***1,7***	*0,3*	*0,3*	6,7	7,2	***1,4***	*0,0*	*0,0*	6,6	7,1	***1,3***	*-0,1*	*-0,1*
NL	6,1	6,9	7,3	***1,2***	*-0,2*	*-0,2*	7,1	7,4	***1,3***	*0,0*	*0,0*	7,0	7,4	***1,3***	*-0,1*	*-0,1*
PT	6,7	6,9	7,5	***0,8***	*0,2*	*0,2*	6,7	7,3	***0,6***	*0,0*	*0,0*	6,6	7,2	***0,5***	*0,0*	*0,0*
SE	6,7	7,5	7,8	***1,1***	*0,0*	*0,0*	7,5	7,8	***1,1***	*0,0*	*0,0*	7,4	7,8	***1,0***	*0,0*	*0,0*
CZ	6,4	7,7	8,3	***1,9***	*0,0*	*0,0*	7,7	8,3	***1,9***	*0,0*	*0,0*	7,6	8,2	***1,8***	*-0,1*	*-0,1*
HU	5,5	6,5	6,8	***1,3***	*0,3*	*0,3*	6,3	6,7	***1,2***	*0,1*	*0,1*	6,2	6,5	***1,0***	*0,0*	*0,0*
PL	4,1	4,7	5,1	***1,0***	*-0,3*	*-0,3*	5,0	5,4	***1,3***	*0,0*	*0,0*	5,1	5,5	***1,4***	*0,1*	*0,1*

***** component following the past trend between 2005 and 2014 and evolving in line with GDP per capita thereafter. Other components evolve in line with GDP per capita over the entire projection period

7. DETAILED RESULTS OF THE PROJECTIONS ON HEALTH CARE

Table 7-1 *Pure ageing* scenario (I) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	2010	2015	2020	2025	2030	2035	2040	2045	2050	*change 2004-2050*
BE	6,2	6,4	6,6	6,8	7,0	7,3	7,5	7,6	7,7	7,7	*1,5*
DK	6,9	7,0	7,2	7,4	7,6	7,7	7,8	7,9	7,9	8,0	*1,1*
DE	6,0	6,3	6,5	6,7	6,8	7,0	7,1	7,2	7,3	7,3	*1,3*
GR	5,1	5,3	5,5	5,5	5,7	5,9	6,2	6,5	6,7	6,9	*1,8*
ES	6,1	6,3	6,5	6,7	7,0	7,3	7,6	7,9	8,1	8,3	*2,2*
FR	7,7	8,0	8,2	8,4	8,7	9,0	9,2	9,4	9,5	9,5	*1,8*
IE	5,3	5,5	5,7	5,9	6,1	6,4	6,6	6,9	7,1	7,3	*2,0*
IT	5,8	6,0	6,1	6,3	6,5	6,7	6,9	7,0	7,1	7,2	*1,4*
LU	5,1	5,2	5,4	5,5	5,7	5,8	5,9	6,1	6,1	6,2	*1,1*
NL	6,1	6,3	6,5	6,7	6,9	7,1	7,3	7,4	7,4	7,4	*1,3*
AT	5,3	5,5	5,7	5,9	6,1	6,3	6,5	6,7	6,9	6,9	*1,7*
PT	6,7	6,8	6,8	6,7	6,6	6,7	6,9	7,0	7,2	7,3	*0,6*
FI	5,6	5,8	6,0	6,2	6,4	6,7	6,9	7,0	7,0	7,0	*1,5*
SE	6,7	6,8	7,0	7,2	7,3	7,5	7,6	7,7	7,7	7,8	*1,0*
UK	7,0	7,2	7,4	7,7	8,0	8,3	8,6	8,9	9,1	9,3	*2,3*
CY	2,9	3,1	3,2	3,3	3,5	3,6	3,7	3,8	3,9	4,0	*1,1*
CZ	6,4	6,7	7,0	7,3	7,5	7,7	7,9	8,1	8,2	8,3	*1,9*
EE	5,4	5,6	5,7	5,8	5,9	6,0	6,1	6,2	6,3	6,3	*0,9*
HU	5,5	5,7	5,8	5,9	6,1	6,2	6,3	6,4	6,5	6,5	*1,0*
LT	3,7	3,8	4,0	4,0	4,1	4,1	4,2	4,3	4,3	4,4	*0,7*
LV	5,1	5,3	5,4	5,5	5,5	5,6	5,7	5,8	5,9	5,9	*0,7*
MT	4,2	4,5	4,8	5,1	5,4	5,6	5,8	6,0	6,1	6,2	*2,0*
PL	4,1	4,3	4,5	4,7	4,8	5,0	5,1	5,2	5,3	5,4	*1,3*
SK	4,4	4,6	4,8	5,1	5,3	5,5	5,7	5,9	6,0	6,1	*1,8*
SI	6,4	6,6	6,8	7,0	7,2	7,4	7,6	7,7	7,8	7,8	*1,4*
EU25	*6,4*	*6,6*	*6,8*	*7,0*	*7,2*	*7,4*	*7,7*	*7,8*	*8,0*	*8,1*	*1,7*
EU15	*6,4*	*6,7*	*6,9*	*7,1*	*7,3*	*7,5*	*7,8*	*8,0*	*8,1*	*8,2*	*1,7*
EU12	*6,3*	*6,5*	*6,7*	*6,9*	*7,1*	*7,3*	*7,6*	*7,7*	*7,9*	*7,9*	*1,6*
EU10	*4,9*	*5,1*	*5,2*	*5,4*	*5,6*	*5,7*	*5,8*	*5,9*	*6,0*	*6,1*	*1,2*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-2 *Constant health* scenario (II) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	2010	2015	2020	2025	2030	2035	2040	2045	2050	*change 2004-2050*
BE	6,2	6,2	6,3	6,4	6,5	6,6	6,8	6,9	6,9	6,9	*0,7*
DK	6,9	6,8	6,9	7,0	7,1	7,2	7,2	7,2	7,1	7,1	*0,3*
DE	6,0	6,1	6,2	6,3	6,4	6,4	6,5	6,6	6,7	6,7	*0,6*
GR	5,1	5,3	5,3	5,3	5,3	5,5	5,7	6,0	6,2	6,3	*1,2*
ES	6,1	6,1	6,2	6,3	6,5	6,8	7,0	7,3	7,5	7,7	*1,6*
FR	7,7	7,8	7,9	8,0	8,2	8,4	8,6	8,7	8,8	8,8	*1,1*
IE	5,3	5,3	5,4	5,5	5,6	5,8	6,0	6,1	6,3	6,4	*1,1*
IT	5,8	5,8	5,9	6,0	6,1	6,3	6,4	6,5	6,6	6,6	*0,8*
LU	5,1	5,1	5,2	5,2	5,3	5,4	5,5	5,6	5,6	5,6	*0,5*
NL	6,1	6,2	6,3	6,5	6,6	6,8	6,9	6,9	6,9	6,9	*0,8*
AT	5,3	5,3	5,5	5,6	5,7	5,8	6,0	6,1	6,2	6,3	*1,0*
PT	6,7	6,7	6,5	6,4	6,2	6,2	6,3	6,4	6,5	6,6	*-0,1*
FI	5,6	5,6	5,7	5,9	6,0	6,2	6,3	6,4	6,4	6,4	*0,9*
SE	6,7	6,7	6,7	6,8	6,9	6,9	7,0	7,0	7,0	7,0	*0,3*
UK	7,0	7,0	7,1	7,1	7,2	7,4	7,6	7,7	7,9	7,9	*0,9*
CY	2,9	3,0	3,1	3,2	3,3	3,3	3,4	3,5	3,6	3,6	*0,7*
CZ	6,4	6,6	6,7	6,8	7,0	7,1	7,2	7,3	7,4	7,5	*1,0*
EE	5,4	5,5	5,6	5,5	5,5	5,5	5,6	5,6	5,6	5,7	*0,2*
HU	5,5	5,5	5,6	5,6	5,6	5,6	5,7	5,7	5,7	5,8	*0,3*
LT	3,7	3,8	3,9	3,9	3,9	3,9	3,9	4,0	4,0	4,0	*0,3*
LV	5,1	5,3	5,3	5,3	5,2	5,2	5,2	5,3	5,3	5,3	*0,2*
MT	4,2	4,4	4,6	4,8	4,9	5,1	5,3	5,4	5,4	5,5	*1,2*
PL	4,1	4,2	4,3	4,4	4,5	4,5	4,6	4,7	4,7	4,8	*0,7*
SK	4,4	4,5	4,7	4,8	4,9	5,0	5,2	5,3	5,4	5,5	*1,1*
SI	6,4	6,6	6,6	6,8	6,9	7,0	7,2	7,2	7,3	7,3	*0,9*
EU25	*6,4*	*6,4*	*6,5*	*6,6*	*6,7*	*6,8*	*7,0*	*7,1*	*7,2*	*7,3*	*0,9*
EU15	*6,4*	*6,5*	*6,6*	*6,7*	*6,8*	*6,9*	*7,1*	*7,2*	*7,3*	*7,4*	*0,9*
EU12	*6,3*	*6,4*	*6,5*	*6,6*	*6,7*	*6,8*	*7,0*	*7,1*	*7,2*	*7,2*	*0,9*
EU10	*4,9*	*5,0*	*5,0*	*5,1*	*5,2*	*5,2*	*5,3*	*5,4*	*5,4*	*5,5*	*0,6*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-3 *Death-related costs* scenario (III) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**	***change 2004-2050***
BE	6,2	6,4	6,5	6,6	6,8	6,9	7,1	7,2	7,3	7,3	*1,1*
DK	6,9	6,9	7,1	7,2	7,4	7,5	7,5	7,5	7,6	7,6	*0,7*
DE	6,0	6,2	6,4	6,6	6,7	6,8	6,9	6,9	7,0	7,0	*1,0*
GR	5,1	5,3	5,4	5,4	5,5	5,7	6,0	6,2	6,4	6,5	*1,4*
ES	6,1	6,2	6,4	6,6	6,8	7,1	7,4	7,6	7,8	8,0	*1,9*
FR	7,7	7,9	8,1	8,3	8,5	8,7	8,9	9,0	9,1	9,1	*1,4*
IE	5,3	5,4	5,5	5,7	5,9	6,1	6,3	6,5	6,6	6,8	*1,5*
IT	5,8	5,9	6,0	6,2	6,3	6,5	6,7	6,8	6,8	6,8	*1,1*
LU	5,1	5,2	5,3	5,4	5,5	5,7	5,8	5,9	5,9	6,0	*0,8*
NL	6,1	6,2	6,4	6,6	6,8	6,9	7,0	7,1	7,1	7,1	*1,0*
AT	5,3	5,4	5,6	5,8	6,0	6,1	6,3	6,4	6,5	6,6	*1,3*
PT	6,7	6,8	6,7	6,6	6,4	6,5	6,6	6,7	6,9	6,9	*0,2*
FI	5,6	5,7	5,9	6,0	6,2	6,4	6,6	6,7	6,7	6,7	*1,1*
SE	6,7	6,8	6,9	7,0	7,1	7,2	7,3	7,4	7,5	7,5	*0,7*
UK	7,0	7,1	7,3	7,5	7,7	8,0	8,3	8,5	8,7	8,8	*1,8*
CY	2,9	3,0	3,2	3,3	3,3	3,4	3,5	3,6	3,7	3,8	*0,9*
CZ	6,4	6,6	6,8	7,0	7,2	7,4	7,5	7,6	7,7	7,8	*1,4*
EE	5,4	5,6	5,6	5,7	5,7	5,7	5,8	5,9	5,9	5,9	*0,5*
HU	5,5	5,6	5,6	5,7	5,8	5,8	5,9	5,9	5,9	6,0	*0,5*
LT	3,7	3,8	3,9	4,0	4,0	4,0	4,0	4,1	4,1	4,1	*0,4*
LV	5,1	5,3	5,4	5,4	5,4	5,4	5,4	5,5	5,5	5,5	*0,4*
MT	4,2	4,4	4,6	4,8	5,0	5,1	5,3	5,3	5,3	5,4	*1,1*
PL	4,1	4,3	4,4	4,5	4,6	4,8	4,8	4,9	5,0	5,0	*0,9*
SK	4,4	4,6	4,7	4,9	5,1	5,3	5,4	5,5	5,6	5,7	*1,3*
SI	6,4	6,6	6,7	6,8	7,0	7,1	7,2	7,3	7,4	7,4	*1,0*
EU25	*6,4*	*6,5*	*6,7*	*6,8*	*7,0*	*7,2*	*7,4*	*7,5*	*7,6*	*7,7*	*1,3*
EU15	*6,4*	*6,6*	*6,8*	*6,9*	*7,1*	*7,3*	*7,5*	*7,6*	*7,8*	*7,8*	*1,4*
EU12	*6,3*	*6,5*	*6,6*	*6,8*	*6,9*	*7,1*	*7,3*	*7,4*	*7,5*	*7,6*	*1,3*
EU10	*4,9*	*5,0*	*5,1*	*5,2*	*5,4*	*5,4*	*5,5*	*5,6*	*5,7*	*5,7*	*0,8*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-4 Scenario capturing income elasticity of demand exceeding unity (IV) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**	***change 2004-2050***
BE	6,2	6,5	6,8	7,0	7,2	7,5	7,7	7,9	8,0	8,0	*1,8*
DK	6,9	7,1	7,3	7,6	7,8	8,0	8,1	8,1	8,2	8,3	*1,4*
DE	6,0	6,3	6,6	6,9	7,0	7,2	7,3	7,5	7,6	7,6	*1,6*
GR	5,1	5,4	5,6	5,7	5,8	6,1	6,4	6,7	7,0	7,2	*2,1*
ES	6,1	6,3	6,6	6,9	7,2	7,6	7,9	8,2	8,5	8,7	*2,6*
FR	7,7	8,1	8,4	8,6	8,9	9,2	9,5	9,7	9,8	9,9	*2,2*
IE	5,3	5,6	5,9	6,1	6,4	6,8	7,1	7,3	7,5	7,7	*2,4*
IT	5,8	6,0	6,2	6,4	6,7	6,9	7,1	7,3	7,4	7,4	*1,6*
LU	5,1	5,4	5,6	5,8	6,0	6,2	6,4	6,5	6,6	6,7	*1,5*
NL	6,1	6,3	6,6	6,8	7,1	7,3	7,5	7,6	7,7	7,7	*1,6*
AT	5,3	5,5	5,8	6,1	6,3	6,5	6,8	7,0	7,1	7,2	*1,9*
PT	6,7	6,9	6,9	6,9	6,8	6,9	7,1	7,3	7,4	7,5	*0,8*
FI	5,6	5,8	6,1	6,4	6,6	6,9	7,1	7,3	7,3	7,3	*1,8*
SE	6,7	6,9	7,1	7,4	7,6	7,8	7,9	8,0	8,1	8,1	*1,4*
UK	7,0	7,3	7,6	7,9	8,3	8,6	9,0	9,3	9,6	9,7	*2,7*
CY	2,9	3,1	3,3	3,5	3,6	3,8	3,9	4,0	4,1	4,2	*1,3*
CZ	6,4	6,8	7,2	7,6	7,9	8,2	8,4	8,6	8,7	8,9	*2,4*
EE	5,4	5,8	6,0	6,2	6,3	6,5	6,6	6,8	6,9	6,9	*1,5*
HU	5,5	5,8	6,0	6,2	6,4	6,6	6,7	6,8	6,9	6,9	*1,4*
LT	3,7	4,0	4,2	4,3	4,4	4,5	4,6	4,7	4,8	4,8	*1,1*
LV	5,1	5,6	5,8	6,0	6,0	6,1	6,3	6,4	6,5	6,5	*1,4*
MT	4,2	4,6	4,9	5,2	5,5	5,8	6,0	6,2	6,4	6,5	*2,2*
PL	4,1	4,4	4,7	4,9	5,2	5,4	5,5	5,6	5,7	5,8	*1,7*
SK	4,4	4,7	5,1	5,4	5,7	6,0	6,2	6,4	6,5	6,7	*2,3*
SI	6,4	6,8	7,0	7,3	7,6	7,8	8,0	8,1	8,3	8,3	*1,9*
EU25	*6,4*	*6,7*	*6,9*	*7,2*	*7,4*	*7,7*	*7,9*	*8,2*	*8,3*	*8,4*	*2,0*
EU15	*6,4*	*6,7*	*7,0*	*7,3*	*7,5*	*7,8*	*8,1*	*8,3*	*8,4*	*8,5*	*2,1*
EU12	*6,3*	*6,6*	*6,8*	*7,1*	*7,3*	*7,6*	*7,8*	*8,0*	*8,1*	*8,2*	*1,9*
EU10	*4,9*	*5,2*	*5,5*	*5,7*	*5,9*	*6,1*	*6,3*	*6,4*	*6,5*	*6,6*	*1,7*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-5 Scenario where unit costs evolve in line with GDP per worker (V) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	2010	2015	2020	2025	2030	2035	2040	2045	2050	*change 2004-2050*
BE	6,2	6,2	6,3	6,6	7,0	7,4	7,8	8,0	8,1	8,1	*1,9*
DK	6,9	7,0	7,2	7,5	7,9	8,3	8,5	8,7	8,6	8,6	*1,7*
DE	6,0	6,0	6,0	6,3	6,6	7,0	7,4	7,6	7,8	7,8	*1,8*
GR	5,1	5,2	5,2	5,3	5,6	6,0	6,5	7,1	7,6	7,9	*2,8*
ES	6,1	5,9	6,0	6,2	6,5	7,0	7,6	8,3	9,0	9,4	*3,3*
FR	7,7	7,8	8,0	8,4	8,8	9,2	9,6	9,9	10,0	10,1	*2,4*
IE	5,3	5,2	5,4	5,6	5,8	6,1	6,4	6,8	7,3	7,7	*2,4*
IT	5,8	5,7	5,8	5,9	6,2	6,5	7,0	7,4	7,7	7,8	*2,0*
LU	5,1	4,9	5,0	5,1	5,2	5,2	5,2	5,2	5,1	4,9	*-0,2*
NL	6,1	6,2	6,4	6,7	7,1	7,6	7,9	8,0	7,9	7,9	*1,8*
AT	5,3	5,3	5,5	5,7	6,1	6,6	7,0	7,3	7,5	7,6	*2,4*
PT	6,7	6,7	6,7	6,7	6,7	6,9	7,3	7,8	8,2	8,5	*1,8*
FI	5,6	5,7	6,0	6,3	6,7	7,1	7,4	7,5	7,5	7,5	*2,0*
SE	6,7	6,7	6,9	7,2	7,5	7,8	8,0	8,1	8,1	8,1	*1,4*
UK	7,0	7,0	7,3	7,6	8,1	8,6	9,2	9,5	9,8	10,0	*3,0*
CY	2,9	2,9	3,0	3,1	3,4	3,5	3,7	3,8	4,0	4,2	*1,3*
CZ	6,4	6,6	6,8	7,2	7,6	7,9	8,4	8,9	9,5	9,8	*3,4*
EE	5,4	5,2	5,2	5,4	5,6	5,7	5,8	6,0	6,2	6,5	*1,1*
HU	5,5	5,4	5,5	5,7	5,8	6,0	6,3	6,6	6,9	7,1	*1,6*
LT	3,7	3,5	3,4	3,5	3,6	3,8	3,9	4,1	4,2	4,4	*0,7*
LV	5,1	4,8	4,8	4,9	5,1	5,2	5,4	5,5	5,8	6,1	*0,9*
MT	4,2	4,4	4,6	4,9	5,2	5,5	5,7	6,0	6,2	6,4	*2,2*
PL	4,1	4,0	4,0	4,1	4,2	4,4	4,6	4,8	5,1	5,4	*1,3*
SK	4,4	4,4	4,3	4,5	4,7	5,0	5,3	5,7	6,2	6,6	*2,2*
SI	6,4	6,5	6,7	7,1	7,5	8,0	8,4	8,8	9,1	9,4	*2,9*
EU25	*6,4*	*6,4*	*6,5*	*6,8*	*7,1*	*7,5*	*7,9*	*8,3*	*8,5*	*8,7*	*2,3*
EU15	*6,4*	*6,5*	*6,6*	*6,9*	*7,2*	*7,7*	*8,1*	*8,4*	*8,7*	*8,8*	*2,4*
EU12	*6,3*	*6,3*	*6,4*	*6,6*	*7,0*	*7,4*	*7,8*	*8,2*	*8,4*	*8,5*	*2,2*
EU10	*4,9*	*4,9*	*4,9*	*5,0*	*5,2*	*5,4*	*5,7*	*6,0*	*6,3*	*6,6*	*1,7*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-6 *AWG reference* scenario (VI) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	2010	2015	2020	2025	2030	2035	2040	2045	2050	*change 2004-2050*
BE	6,2	6,4	6,6	6,8	6,9	7,1	7,3	7,5	7,6	7,6	*1,4*
DK	6,9	7,0	7,2	7,4	7,6	7,7	7,7	7,8	7,8	7,8	*1,0*
DE	6,0	6,3	6,5	6,7	6,8	6,9	7,0	7,1	7,2	7,2	*1,2*
GR	5,1	5,4	5,5	5,6	5,7	5,9	6,2	6,5	6,7	6,8	*1,7*
ES	6,1	6,3	6,5	6,7	7,0	7,3	7,6	7,9	8,1	8,3	*2,2*
FR	7,7	8,0	8,2	8,4	8,6	8,9	9,2	9,3	9,4	9,5	*1,8*
IE	5,3	5,5	5,7	5,9	6,2	6,4	6,7	6,9	7,1	7,3	*2,0*
IT	5,8	6,0	6,1	6,3	6,5	6,7	6,9	7,0	7,1	7,1	*1,3*
LU	5,1	5,3	5,4	5,6	5,7	5,9	6,1	6,2	6,3	6,3	*1,2*
NL	6,1	6,3	6,5	6,7	6,9	7,1	7,3	7,4	7,4	7,4	*1,3*
AT	5,3	5,5	5,7	5,9	6,1	6,3	6,5	6,7	6,8	6,8	*1,6*
PT	6,7	6,8	6,8	6,7	6,6	6,6	6,8	6,9	7,1	7,2	*0,5*
FI	5,6	5,8	6,0	6,2	6,4	6,6	6,9	7,0	7,0	7,0	*1,4*
SE	6,7	6,8	7,0	7,2	7,4	7,5	7,6	7,7	7,7	7,7	*1,0*
UK	7,0	7,2	7,4	7,6	7,9	8,1	8,4	8,7	8,8	8,9	*1,9*
CY	2,9	3,1	3,3	3,4	3,5	3,6	3,8	3,9	4,0	4,0	*1,1*
CZ	6,4	6,8	7,1	7,4	7,6	7,8	8,0	8,1	8,3	8,4	*2,0*
EE	5,4	5,8	6,0	6,1	6,1	6,2	6,3	6,4	6,5	6,5	*1,1*
HU	5,5	5,7	5,9	6,0	6,2	6,3	6,3	6,4	6,5	6,5	*1,0*
LT	3,7	4,0	4,2	4,3	4,3	4,4	4,4	4,5	4,6	4,6	*0,9*
LV	5,1	5,5	5,8	5,8	5,9	5,9	6,0	6,1	6,2	6,2	*1,1*
MT	4,2	4,5	4,8	5,0	5,3	5,5	5,7	5,9	6,0	6,1	*1,8*
PL	4,1	4,4	4,6	4,8	5,0	5,1	5,2	5,3	5,4	5,5	*1,4*
SK	4,4	4,7	5,0	5,2	5,5	5,7	5,9	6,0	6,2	6,3	*1,9*
SI	6,4	6,7	6,9	7,2	7,4	7,6	7,8	7,9	8,0	8,0	*1,6*
EU25	*6,4*	*6,6*	*6,8*	*7,0*	*7,2*	*7,4*	*7,6*	*7,8*	*7,9*	*7,9*	*1,6*
EU15	*6,4*	*6,7*	*6,9*	*7,1*	*7,3*	*7,5*	*7,7*	*7,9*	*8,0*	*8,1*	*1,6*
EU12	*6,3*	*6,5*	*6,7*	*6,9*	*7,1*	*7,3*	*7,5*	*7,7*	*7,8*	*7,8*	*1,5*
EU10	*4,9*	*5,2*	*5,4*	*5,5*	*5,7*	*5,8*	*6,0*	*6,1*	*6,2*	*6,2*	*1,3*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-7 *High life expectancy* scenario (A-I) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**	***change 2004-2050***
BE	6,2	6,4	6,7	6,9	7,1	7,3	7,6	7,8	7,9	8,0	*1,8*
DK	6,9	7,0	7,2	7,5	7,7	7,8	7,9	8,0	8,1	8,2	*1,4*
DE	6,0	6,3	6,5	6,8	7,0	7,1	7,3	7,5	7,7	7,7	*1,7*
GR	5,1	5,3	5,5	5,6	5,7	6,0	6,4	6,7	7,0	7,2	*2,1*
ES	6,1	6,3	6,5	6,7	7,0	7,4	7,7	8,1	8,3	8,6	*2,5*
FR	7,7	8,0	8,2	8,5	8,7	9,1	9,4	9,6	9,7	9,8	*2,1*
IE	5,3	5,5	5,7	5,9	6,2	6,5	6,7	7,0	7,3	7,5	*2,2*
IT	5,8	6,0	6,1	6,3	6,5	6,8	7,0	7,2	7,3	7,4	*1,6*
LU	5,1	5,3	5,7	5,9	6,0	5,9	5,8	5,7	5,6	5,5	*0,4*
NL	6,1	6,3	6,5	6,7	7,0	7,2	7,4	7,5	7,6	7,7	*1,6*
AT	5,3	5,5	5,7	6,0	6,2	6,4	6,7	6,9	7,1	7,2	*1,9*
PT	6,7	6,8	6,8	6,7	6,7	6,7	7,0	7,2	7,3	7,5	*0,8*
FI	5,6	5,8	6,0	6,2	6,5	6,8	7,0	7,2	7,3	7,3	*1,8*
SE	6,7	6,8	7,0	7,2	7,4	7,6	7,7	7,9	8,0	8,0	*1,3*
UK	7,0	7,2	7,5	7,7	8,1	8,4	8,8	9,2	9,4	9,7	*2,6*
CY	2,9	3,1	3,2	3,4	3,5	3,6	3,8	3,9	4,0	4,1	*1,2*
CZ	6,4	6,7	7,0	7,3	7,6	7,8	8,0	8,2	8,4	8,6	*2,1*
EE	5,4	5,6	5,7	5,8	5,9	6,1	6,2	6,3	6,4	6,5	*1,1*
HU	5,5	5,7	5,8	6,0	6,1	6,3	6,4	6,5	6,6	6,7	*1,2*
LT	3,7	3,8	4,0	4,1	4,1	4,2	4,3	4,4	4,5	4,5	*0,8*
LV	5,1	5,3	5,5	5,5	5,6	5,7	5,8	5,9	6,0	6,1	*0,9*
MT	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,2	6,4	6,5	*2,3*
PL	4,1	4,3	4,5	4,7	4,9	5,0	5,2	5,3	5,4	5,5	*1,4*
SK	4,4	4,6	4,9	5,1	5,4	5,6	5,8	6,0	6,2	6,3	*2,0*
SI	6,4	6,6	6,8	7,0	7,3	7,5	7,7	7,8	8,0	8,1	*1,6*
EU25	*6,4*	*6,6*	*6,8*	*7,0*	*7,3*	*7,5*	*7,8*	*8,0*	*8,2*	*8,4*	*2,0*
EU15	*6,4*	*6,7*	*6,9*	*7,1*	*7,4*	*7,6*	*7,9*	*8,2*	*8,4*	*8,5*	*2,0*
EU12	*6,3*	*6,5*	*6,7*	*7,0*	*7,2*	*7,4*	*7,7*	*7,9*	*8,1*	*8,2*	*1,9*
EU10	*4,9*	*5,1*	*5,3*	*5,4*	*5,6*	*5,8*	*5,9*	*6,1*	*6,2*	*6,3*	*1,4*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-8 *Improved health* scenario (A-II) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**	***change 2004-2050***
BE	6,2	6,1	6,0	6,0	6,0	6,1	6,2	6,3	6,3	6,3	*0,1*
DK	6,9	6,7	6,6	6,6	6,7	6,6	6,6	6,5	6,5	6,4	*-0,4*
DE	6,0	6,0	6,0	6,0	6,0	6,0	6,0	6,1	6,1	6,1	*0,1*
GR	5,1	5,2	5,2	5,1	5,1	5,2	5,3	5,5	5,7	5,8	*0,7*
ES	6,1	6,0	6,0	6,0	6,1	6,3	6,5	6,8	7,0	7,1	*1,0*
FR	7,7	7,7	7,7	7,7	7,7	7,9	8,0	8,1	8,1	8,2	*0,5*
IE	5,3	5,2	5,2	5,2	5,2	5,3	5,4	5,5	5,6	5,7	*0,4*
IT	5,8	5,7	5,7	5,8	5,8	5,9	6,0	6,1	6,1	6,1	*0,4*
LU	5,1	5,0	5,0	5,0	5,0	5,0	5,1	5,1	5,1	5,1	*0,0*
NL	6,1	6,1	6,2	6,3	6,4	6,4	6,5	6,5	6,5	6,4	*0,3*
AT	5,3	5,2	5,2	5,2	5,3	5,4	5,5	5,6	5,7	5,7	*0,4*
PT	6,7	6,5	6,3	6,1	5,8	5,7	5,8	5,9	5,9	6,0	*-0,7*
FI	5,6	5,5	5,5	5,6	5,7	5,8	5,9	6,0	6,0	5,9	*0,4*
SE	6,7	6,5	6,4	6,4	6,5	6,5	6,5	6,4	6,4	6,4	*-0,3*
UK	7,0	6,8	6,7	6,7	6,7	6,8	6,9	7,1	7,2	7,2	*0,2*
CY	2,9	2,9	3,0	3,1	3,1	3,1	3,2	3,2	3,3	3,3	*0,4*
CZ	6,4	6,4	6,4	6,5	6,5	6,5	6,5	6,6	6,6	6,7	*0,3*
EE	5,4	5,5	5,4	5,3	5,2	5,1	5,1	5,1	5,1	5,1	*-0,3*
HU	5,5	5,4	5,3	5,3	5,2	5,2	5,2	5,2	5,2	5,2	*-0,3*
LT	3,7	3,8	3,8	3,8	3,7	3,7	3,7	3,7	3,7	3,7	*0,0*
LV	5,1	5,2	5,2	5,1	5,0	4,9	4,9	4,9	4,9	4,9	*-0,3*
MT	4,2	4,3	4,4	4,5	4,6	4,7	4,8	4,8	4,8	4,8	*0,6*
PL	4,1	4,1	4,1	4,1	4,1	4,2	4,2	4,2	4,2	4,3	*0,2*
SK	4,4	4,4	4,5	4,6	4,6	4,6	4,7	4,8	4,8	4,9	*0,5*
SI	6,4	6,5	6,5	6,5	6,6	6,7	6,8	6,9	6,9	6,9	*0,5*
EU25	*6,4*	*6,3*	*6,3*	*6,3*	*6,3*	*6,4*	*6,5*	*6,6*	*6,6*	*6,7*	*0,3*
EU15	*6,4*	*6,4*	*6,3*	*6,3*	*6,4*	*6,5*	*6,6*	*6,7*	*6,8*	*6,8*	*0,3*
EU12	*6,3*	*6,3*	*6,3*	*6,3*	*6,3*	*6,4*	*6,5*	*6,6*	*6,7*	*6,7*	*0,4*
EU10	*4,9*	*4,9*	*4,9*	*4,8*	*4,8*	*4,8*	*4,9*	*4,9*	*4,9*	*5,0*	*0,0*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-9 *EU10 cost convergence* scenario (A-III) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	2010	2015	2020	2025	2030	2035	2040	2045	2050	*change 2004-2050*
CZ	6,4	6,7	6,9	7,2	7,5	7,8	8,0	8,3	8,5	8,8	*2,4*
EE	5,4	5,6	5,7	5,9	6,0	6,1	6,3	6,5	6,7	6,8	*1,4*
HU	5,5	5,7	5,8	6,0	6,2	6,4	6,6	6,8	6,9	7,1	*1,6*
LT	3,7	3,9	4,0	4,1	4,2	4,3	4,5	4,7	4,8	4,9	*1,2*
LV	5,1	5,3	5,5	5,6	5,7	5,8	6,0	6,2	6,4	6,5	*1,4*
PL	4,1	4,3	4,5	4,7	4,9	5,1	5,3	5,5	5,6	5,8	*1,7*
SK	4,4	4,6	4,7	5,0	5,2	5,4	5,6	5,9	6,1	6,3	*1,9*
SI	6,4	6,8	7,1	7,4	7,7	8,1	8,4	8,8	9,0	9,3	*2,8*
Weighted average	*5,0*	*5,1*	*5,3*	*5,5*	*5,7*	*5,9*	*6,1*	*6,3*	*6,5*	*6,7*	*1,7*

Note: average weighted by GDP

Table 7-10 *Fast cost growth* scenario (unit costs growing 1 p.p. above GDP per capita between 2005 and 2014) (A-IV) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	2010	2015	2020	2025	2030	2035	2040	2045	2050	*change 2004-2050*
BE	6,2	6,8	7,3	7,5	7,7	8,0	8,2	8,4	8,5	8,5	*2,3*
DK	6,9	7,4	7,9	8,2	8,4	8,5	8,6	8,7	8,7	8,8	*1,9*
DE	6,0	6,7	7,2	7,4	7,5	7,7	7,8	8,0	8,1	8,1	*2,1*
GR	5,1	5,7	6,0	6,1	6,3	6,5	6,9	7,2	7,4	7,6	*2,5*
ES	6,1	6,7	7,1	7,4	7,7	8,0	8,4	8,7	9,0	9,2	*3,1*
FR	7,7	8,5	9,1	9,3	9,6	9,9	10,2	10,3	10,4	10,5	*2,8*
IE	5,3	5,8	6,2	6,4	6,7	7,0	7,3	7,6	7,8	8,0	*2,7*
IT	5,8	6,3	6,7	6,9	7,2	7,4	7,6	7,8	7,9	7,9	*2,1*
LU	5,1	5,6	5,9	6,1	6,2	6,4	6,5	6,7	6,8	6,8	*1,7*
NL	6,1	6,6	7,1	7,4	7,6	7,8	8,0	8,1	8,2	8,2	*2,1*
AT	5,3	5,8	6,3	6,5	6,8	7,0	7,2	7,4	7,6	7,7	*2,4*
PT	6,7	7,2	7,5	7,4	7,3	7,4	7,6	7,8	7,9	8,0	*1,3*
FI	5,6	6,1	6,6	6,8	7,1	7,3	7,6	7,7	7,8	7,8	*2,2*
SE	6,7	7,2	7,7	7,9	8,1	8,2	8,4	8,5	8,5	8,6	*1,8*
UK	7,0	7,6	8,2	8,5	8,8	9,2	9,5	9,8	10,1	10,2	*3,2*
CY	2,9	3,2	3,5	3,7	3,8	3,9	4,1	4,2	4,3	4,4	*1,5*
CZ	6,4	7,1	7,7	8,0	8,3	8,5	8,7	8,9	9,0	9,2	*2,7*
EE	5,4	5,9	6,3	6,4	6,4	6,6	6,7	6,8	6,9	6,9	*1,5*
HU	5,5	6,0	6,4	6,5	6,7	6,8	6,9	7,0	7,1	7,2	*1,7*
LT	3,7	4,1	4,3	4,4	4,5	4,5	4,6	4,7	4,8	4,8	*1,1*
LV	5,1	5,6	6,0	6,0	6,0	6,1	6,2	6,4	6,4	6,5	*1,3*
MT	4,2	4,8	5,3	5,6	5,9	6,2	6,4	6,6	6,7	6,8	*2,6*
PL	4,1	4,6	4,9	5,1	5,3	5,5	5,6	5,7	5,8	5,9	*1,8*
SK	4,4	4,9	5,3	5,6	5,8	6,1	6,3	6,5	6,6	6,8	*2,4*
SI	6,4	7,0	7,5	7,7	7,9	8,2	8,3	8,5	8,6	8,6	*2,2*
EU25	*6,4*	*7,0*	*7,5*	*7,7*	*7,9*	*8,2*	*8,4*	*8,6*	*8,8*	*8,9*	*2,5*
EU15	*6,4*	*7,1*	*7,6*	*7,8*	*8,0*	*8,3*	*8,6*	*8,8*	*8,9*	*9,0*	*2,6*
EU12	*6,3*	*6,9*	*7,4*	*7,6*	*7,8*	*8,1*	*8,3*	*8,5*	*8,7*	*8,7*	*2,4*
EU10	*4,9*	*5,4*	*5,8*	*5,9*	*6,1*	*6,3*	*6,4*	*6,5*	*6,7*	*6,7*	*1,8*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

Table 7-11 *Extrapolation of past trends* scenario (all components following past trends between 2005 and 2014) (A-V) : projected spending on health care as % of GDP

	Projected spending as % of GDP										
	2004	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**	***change 2004-2050***
BE	6,2	6,4	6,6	6,8	7,0	7,2	7,4	7,6	7,7	7,7	*1,5*
DK	6,9	7,2	7,5	7,7	7,9	8,1	8,1	8,2	8,2	8,3	*1,4*
DE	6,0	6,4	6,6	6,8	6,9	7,1	7,2	7,3	7,4	7,4	*1,4*
GR	5,1	5,5	5,7	5,8	5,9	6,2	6,5	6,8	7,1	7,2	*2,1*
ES	6,1	6,4	6,6	6,8	7,1	7,4	7,8	8,1	8,3	8,5	*2,4*
FR	7,7	7,9	8,1	8,3	8,5	8,8	9,1	9,2	9,3	9,4	*1,7*
IE	5,3	5,8	6,0	6,2	6,5	6,8	7,1	7,3	7,5	7,7	*2,4*
IT	5,8	6,1	6,3	6,5	6,7	7,0	7,2	7,3	7,4	7,4	*1,6*
LU	5,1	5,2	5,4	5,5	5,6	5,8	5,9	6,1	6,1	6,2	*1,1*
NL	6,1	6,1	6,2	6,5	6,7	6,9	7,0	7,1	7,2	7,2	*1,1*
AT	5,3	5,5	5,8	6,0	6,2	6,4	6,6	6,8	7,0	7,0	*1,8*
PT	6,7	7,0	7,0	6,9	6,8	6,9	7,1	7,2	7,4	7,5	*0,8*
FI	5,6	6,0	6,3	6,6	6,8	7,1	7,3	7,4	7,5	7,5	*1,9*
SE	6,7	6,8	7,0	7,2	7,3	7,5	7,6	7,7	7,8	7,8	*1,1*
UK	7,0	7,1	7,3	7,5	7,8	8,2	8,5	8,8	9,0	9,1	*2,1*
CY	2,9	2,9	3,0	3,1	3,2	3,4	3,5	3,6	3,7	3,7	*0,8*
CZ	6,4	6,7	6,9	7,2	7,4	7,6	7,8	8,0	8,1	8,2	*1,8*
EE	5,4	5,5	5,6	5,6	5,7	5,8	5,9	6,0	6,1	6,1	*0,7*
HU	5,5	6,0	6,2	6,3	6,5	6,6	6,7	6,8	6,9	7,0	*1,5*
LT	3,7	3,7	3,8	3,9	3,9	4,0	4,0	4,1	4,2	4,2	*0,5*
LV	5,1	5,1	5,2	5,2	5,2	5,3	5,4	5,5	5,6	5,6	*0,5*
MT	4,2	4,8	5,2	5,5	5,8	6,0	6,3	6,5	6,6	6,7	*2,5*
PL	4,1	4,2	4,3	4,5	4,7	4,8	4,9	5,0	5,1	5,2	*1,1*
SK	4,4	4,5	4,7	4,9	5,2	5,4	5,5	5,7	5,9	6,0	*1,6*
SI	6,4	6,6	6,7	6,9	7,1	7,3	7,5	7,6	7,7	7,7	*1,3*
EU25	*6,4*	*6,6*	*6,8*	*7,0*	*7,2*	*7,4*	*7,7*	*7,9*	*8,0*	*8,1*	*1,7*
EU15	*6,4*	*6,7*	*6,9*	*7,1*	*7,3*	*7,6*	*7,8*	*8,0*	*8,1*	*8,2*	*1,8*
EU12	*6,3*	*6,6*	*6,8*	*7,0*	*7,2*	*7,4*	*7,6*	*7,8*	*7,9*	*8,0*	*1,7*
EU10	*4,9*	*5,1*	*5,2*	*5,3*	*5,5*	*5,6*	*5,8*	*5,9*	*6,0*	*6,1*	*1,1*

Note: EU25, EU15, EU12 and EU10 – averages weighted by GDP

8. DATA USED TO MAKE THE PROJECTIONS ON LONG-TERM CARE

In order to run the projections on long-term care, the following data inputs are needed for each year of the projection exercise:

- *Population by age group and gender*: the AWG scenario population projection is used;

- *Prevalence rates of dependency by age and gender:* for the countries for which it is available, the model currently uses age and gender-specific rates from the SHARE project. The prevalence rates can be either kept constant or assumed to change over time to reflect expected changes;

- *Probability of receiving different types of long-term care by age and gender*: this is calculated in the base year, using estimates on the numbers of people with dependency and data on the numbers of people receiving formal care at home and the numbers of dependent people in long-term care institutions. It is proposed to assume that the difference between the total number of dependent people and the total number of people receiving formal care (at home or in institutions) is the number of people who rely exclusively on informal care, or no care. This assumption was also used in the *European Study of Long-Term Care Expenditure* (see Pickard 2003, page 187, for a discussion);

- *Average public expenditure per individual (for formal care at home and institutional care):* these figures are obtained by dividing total public expenditure on formal care at home/institutional care by the total number of users of formal care at home and the total number of dependent residents in institutions, respectively;

- *Public expenditure in disability-related benefits*: this is obtained from estimates from each country.

In order to calculate these variables, AWG members were asked to provide data on national sources on:

- age-specific public long-term care expenditure profiles;
- total public long-term care expenditure;
- total public expenditure on institutional care;
- total public expenditure on home care;
- total public expenditure on long-term care cash benefits;
- number of dependent users of institutional care, by five-year age group and gender;
- number of dependent users of home care, by five-year age group and gender.
- number of recipients of cash benefits, by five-year age group and gender.

Table 8-1 provides a detailed description of data received from Member States.

Table 8-1 Detailed description of data received on long-term care

Indicator	Possible split	Availability											
		BE	DK	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT
Total public spending on long-term care	in euros	2003	2003	2004	X	2003	2004	2004	2004	2004	X	2003	X
Per capita public spending on long-term care	Male, Female	2001 m/f	2003 m/f	2004 total	X	X	X	X	2004	2003 m/f	total	X	X
	Single year	0, ... , 100+	0, ... , 100								0, ... , 99	X	X
	5-year cohorts	0-4, ... , 95+	50-54, ... , 100+	0-14, 15-19, ... , 90+					0-4, ... , 95+				
Total number of dependent people receiving long-term care in institutions	Male, Female	2003 m/f	2005 total	2004 total	X	2003 m/f	X	2004	2004	2004	2001 m/f	X	X
	Single year				X		X	<64, 65+		X	55, ... , 99+	X	X
	5-year cohorts	<60, 60-64; ... , 95+		0-14, 15-19, ... , 90+	X	<65, >80	X	<40, 40-64, 65-69, ... 95+	0-4, ... , 90+	0-18, 19-39, 39-59, 60-69, 70-79, 80-89, 90+		X	X
Total number of dependent people receiving long-term care at home	Male, Female	2003 m/f	2005	2004 total	X	2003 m/f	X	X	2004	2004	X	X	X
	Single year				X		X	X		X	X	X	X
	5-year cohorts	<60, 60-64; ... , 95+	<65, 65-66, 67-79, 80+	0-14, 15-19, ... , 90+	X	<80, >80	X	X	0-4, ... , 90+	X	X	X	X
Total public expenditure on long-term institutional care	in euros	2003	X	2003	X	2003	X	2004	2004	2004	X	X	X
Total public expenditure on long-term care at home	in euros	2003	X	2003	X	2003	X	2004	2004	2004	X	X	X
Total number of recipients of long-term care-related cash benefits	Male, Female	2003 total	X	2003 total	X	2003 m/f	X	2004	2004	X	2003 total	2004 m/f	X
	Single year									X		0,1, ... , 99+	X
	5-year cohorts							0-4, 60-64, ... , 65+	0-4, ... , 90+	X			X
Total public expenditure on long-term care-related cash benefits	in euros	2003 total		2003	X	X	X	2004	2004	X	2003 total	2004	X

Indicator	Possible split	Availability												
		FI	SE	UK	CY	CZ	EE	HU	LT	LV	MT	PL	SK	SI
Total public spending on long-term care	in euros	2003	2004	2002/03	2004	2003	2003	X	2004	2003	2003		2003	X
Per capita public spending on long-term care	Male, Female	2003	2004	2002/03	X	2003 m/f	X	X	2004 m/f	2003 m/f	2003 m/f	m/f	X	2004
	Single year								0, …, 100+	0, …, 100+		0, …, 100+	X	X
	5-year cohorts	0-4, …, 95+	1,…, 100	0-4, …, 100+		0-4, …, 85+					<60, 60-64, …, 80+		X	X
Total number of dependent people receiving long-term care in institutions	Male, Female	2003 total	2003 total	2002 estimate m/f	X	2003 total	X	X	2004 m/f	2004 total 2003 m/f	2003 m/f	2004 total	m/f 2004	2004
	Single year								0, …, 100	0-4, …100+			X	X
	5-year cohorts	0-64, …, 85+	65, .., 100	65-69, …, 85+		X							X	X
Total number of dependent people receiving long-term care at home	Male, Female	2003 total	2003 total	2002	X	2003 total	X	X	2004 m/f total	2004 total	X	2004 total	2003 total	X
	Single year					X				X			X	X
	5-year cohorts	0-64; 65-74; 75-84; 85+	65, .., 100			X				X			X	X
Total public expenditure on long-term institutional care	in euros	2003	2004	2002/ 2003	X	2003	X	X	2004	2003	2003	2003	2003	2004
Total public expenditure on long-term care at home	in euros	2003	2004	2002/ 2003	X	2003	X	X	2004	2004	2003	2004	2003	2004
Total number of recipients of long-term care-related cash benefits	Male, Female	2003 total	X	X	X	X	X	X	2004 total	X	2003	2004 total	2004 total	X
	Single year													
	5-year cohorts	0-4; 95+									2003			
Total public expenditure on long-term care-related cash benefits	in euros	2003 total	X	X	2004	2003 total	X	X	2004 total	X	X	2004 total	2004 total	2004

9. ADDITIONAL SCENARIOS FOR PUBLIC SPENDING ON LONG-TERM CARE

Table 9-1 presents the overview of additional scenarios (sensitivity tests) that complement the analysis of factors affecting public long term care spending presented in chapter 5 of the report.

Table 9-1 Overview of additional scenarios for public spending on long-term care

	High life expectancy	**Improved disability scenario**	**Increase in formal care - all in the home**	**Increase in formal care - all in institutions**
	A-I	**A-II**	**A-III**	***A-IV***
Population projection	*AWG scenario - high life expectancy*	AWG scenario - baseline	AWG scenario - baseline	AWG scenario - baseline
Disability status over time	Disability rates held constant at 2004 level	Age-specific disability rates fall twice as fast as age-specific mortality rates (compression of morbidity)	Disability rates held constant at 2004 level	Disability rates held constant at 2004 level
Policy setting	Probability of receiving care held constant at 2004 level	Probability of receiving care held constant at 2004 level	1% p.a. decrease in number of persons receiving informal care up to 2020 all going to home care	1% p.a. decrease in number of persons receiving informal care up to 2020 all going to institutions
Unit costs	GDP per worker	GDP per worker	GDP per worker	GDP per worker

9.1. High life expectancy scenario

Scenario A-I examines the impact of *higher life expectancy* on long-term care spending. It is based on the same assumptions as the pure ageing scenario (I) presented in chapter 4, except that it uses the high life expectancy population projection rather than the AWG population scenario: for more details, see chapter 2 in EPC and European Commission (2005a).

On average, public expenditure on long-term care is projected to increase by close to 1 p.p. of GDP over the period 2004-2050. A mildly stronger increase is projected compared to the pure ageing scenario over the whole projection period. Public expenditure on long-term care starts increasing faster than under the pure ageing scenario after 2040. Such results illustrate the demographic effect of higher life expectancy, whereby people live longer and require long-

term care services for a longer period of time. This effect has not fully materialised before the end of the projection period.

Table 9-2 Projection results for the "*high life expectancy*" scenario (A-I)

	Projected spending as % of GDP							*Difference as % of GDP compared to pure demographic scenario*		
	2004	**2010**	**2020**	**2030**	**2040**	**2050**	***2004-2050***	**2010**	**2030**	**2050**
BE	0.9	1.0	1.1	1.4	1.9	2.2	*1.4*	0.0	0.1	0.2
DK	1.1	1.2	1.4	2.0	2.4	2.9	*1.7*	0.0	0.1	0.3
DE	1.0	1.0	1.3	1.5	1.9	2.4	*1.5*	0.0	0.1	0.2
GR										
ES	0.5	0.5	0.5	0.6	0.7	0.9	*0.3*	0.0	0.0	0.0
FR										
IE	0.6	0.6	0.6	0.8	1.1	1.5	*0.9*	0.0	0.0	0.1
IT	1.5	1.5	1.6	1.8	2.1	2.5	*0.9*	0.0	0.0	0.1
LU	0.9	1.0	1.1	1.3	1.7	2.1	*1.2*	0.0	0.1	0.3
NL	0.5	0.5	0.6	0.9	1.1	1.3	*0.9*	0.0	0.0	0.1
AT	0.6	0.6	0.6	0.6	0.7	0.7	*0.1*	0.0	0.0	0.0
PT										
FI	1.7	1.9	2.3	3.3	4.1	4.3	*2.6*	0.0	0.1	0.3
SE	3.8	3.8	4.0	5.6	6.2	6.9	*3.0*	0.0	0.2	0.6
UK	1.0	1.0	1.1	1.5	1.8	2.2	*1.2*	0.0	0.0	0.2
CY										
CZ	0.3	0.3	0.4	0.6	0.7	0.9	*0.5*	0.0	0.0	0.1
EE										
HU										
LT	0.5	0.6	0.6	0.7	0.8	1.0	*0.6*	0.0	0.0	0.1
LV	0.4	0.4	0.5	0.6	0.8	0.9	*0.5*	0.0	0.0	0.1
MT	0.9	0.9	0.9	1.1	1.3	1.3	*0.4*	0.0	0.0	0.1
PL	0.1	0.1	0.1	0.1	0.2	0.2	*0.1*	0.0	0.0	0.0
SK	0.7	0.8	0.8	0.9	1.2	1.5	*0.8*	0.0	0.0	0.1
SI	0.9	1.1	1.4	1.6	2.2	2.6	*1.7*	0.0	0.1	0.2
EU25	*0.9*	*0.9*	*1.0*	*1.2*	*1.5*	*1.8*	*0.9*	*0.0*	*0.0*	*0.1*
EU15	*0.9*	*0.9*	*1.0*	*1.3*	*1.5*	*1.8*	*1.0*	*0.0*	*0.0*	*0.1*
EU10	*0.2*	*0.3*	*0.3*	*0.4*	*0.5*	*0.6*	*0.3*	*0.0*	*0.0*	*0.0*

Note: EU25, EU15 and EU10 – average weighted by GDP

9.2. Improved disability scenario

The *improved disability* scenario *(scenario A-II*) is inspired by the compression of morbidity hypothesis. It assumes that the number of years spent in bad health and with disability during a life time is lower in 2050 compared to that in 2004, i.e. it involves a shortening of the share of one's lifespan spent with disability, so that the age-specific disability rate falls twice as fast as the mortality rate.

Table 9-3 presents the projection results. If disability rates are assumed to fall twice as fast as mortality rates, practically all the effects of an ageing population on public spending will be offset by positive developments in the disability status. Public long-term care spending is projected to remain broadly constant.

Table 9-3 Projection results for the "*improved disability*" scenario (A-II)

	Projected spending as % of GDP							*Difference as % of GDP compared to pure demographic scenario*		
	2004	**2010**	**2020**	**2030**	**2040**	**2050**	***2004-2050***	**2010**	**2030**	**2050**
BE	0.9	0.9	0.9	0.9	1.0	1.0	*0.2*	-0.1	-0.5	-1.0
DK	1.1	1.1	1.0	1.2	1.2	1.2	*0.1*	-0.1	-0.7	-1.3
DE	1.0	1.0	1.0	1.0	1.1	1.3	*0.3*	-0.1	-0.4	-1.0
GR										
ES	0.5	0.5	0.5	0.5	0.5	0.6	*0.1*	0.0	-0.1	-0.2
FR										
IE	0.6	0.5	0.5	0.6	0.6	0.7	*0.1*	0.0	-0.2	-0.6
IT	1.5	1.5	1.4	1.5	1.6	1.7	*0.2*	-0.1	-0.3	-0.7
LU	0.9	0.9	0.8	0.8	0.8	0.8	*-0.1*	-0.1	-0.4	-0.9
NL	0.5	0.4	0.4	0.5	0.6	0.6	*0.1*	0.0	-0.3	-0.6
AT										
PT										
FI	1.7	1.8	1.8	2.2	2.2	2.1	*0.4*	-0.1	-1.0	-1.9
SE	3.8	3.4	3.0	3.6	3.3	3.2	*-0.6*	-0.3	-1.8	-3.1
UK	1.0	0.9	0.9	1.0	1.0	1.0	*0.0*	-0.1	-0.5	-1.0
CY										
CZ	0.3	0.3	0.3	0.4	0.4	0.4	*0.1*	0.0	-0.2	-0.4
EE										
HU										
LT	0.5	0.5	0.5	0.5	0.5	0.6	*0.1*	0.0	-0.2	-0.4
LV	0.4	0.4	0.4	0.4	0.4	0.4	*0.0*	0.0	-0.2	-0.4
MT	0.9	0.9	0.8	0.9	0.9	0.8	*-0.1*	0.0	-0.2	-0.4
PL	0.1	0.1	0.1	0.1	0.1	0.1	*0.0*	0.0	0.0	-0.1
SK	0.7	0.7	0.7	0.7	0.9	0.9	*0.2*	0.0	-0.2	-0.5
SI	0.9	1.0	1.1	1.2	1.4	1.4	*0.5*	-0.1	-0.4	-1.0
EU25	*0.8*	*0.8*	*0.8*	*0.8*	*0.9*	*0.9*	*0.1*	*-0.1*	*-0.3*	*-0.7*
EU15	*0.9*	*0.8*	*0.8*	*0.9*	*0.9*	*1.0*	*0.1*	*-0.1*	*-0.4*	*-0.8*
EU10	*0.2*	*0.3*	*0.2*	*0.3*	*0.3*	*0.3*	*0.1*	*0.0*	*-0.1*	*-0.2*

Note: EU25, EU15 and EU10 – average weighted by GDP

9.3. Increase in formal care – all people receive formal care at home

Scenario A-III examines the impact of a change in policy setting in which the supply of informal or no care is assumed to decrease by 1% p.a. until 2020 with the people who no longer receive informal or no care receiving formal care at home.

Table 9-4 shows the projection results. The increase in supply of formal care leads to higher public expenditure on long-term care as compared to the *"pure ageing scenario"*. If the people who used to receive informal or no care are assumed to receive formal care at home, public spending over the projection period would increase by 1.3 p.p. (1.4 p.p. in the EU15 and a mere 0.4 p.p. in the EU10). The projected increase is lower than in the scenario IV in chapter 5 which assumes the same increase in the population receiving formal care, but where the population is split in two, with half of the people receiving formal care at home and the other half receiving care in institutions. This is explained by the difference in unit cost of the two types of care services, with formal care at home being less costly than formal care in institutions.

Table 9-4 Projection results for the scenario *"increase in formal care" (A-III)*

	Projected spending as % of GDP							*Difference as % of GDP compared to pure demographic scenario*		
	2004	**2010**	**2020**	**2030**	**2040**	**2050**	***2004-2050***	**2010**	**2030**	**2050**
BE	0.9	1.0	1.2	1.5	2.0	2.3	*1.4*	0.0	0.1	0.2
DK										
DE	1.0	1.1	1.4	1.6	2.0	2.4	*1.5*	0.0	0.1	0.2
GR										
ES	0.5	0.6	0.7	0.8	1.0	1.3	*0.7*	0.1	0.2	0.4
FR										
IE	0.6	0.6	0.7	0.8	1.1	1.4	*0.8*	0.0	0.0	0.1
IT	1.5	1.6	1.8	2.0	2.3	2.7	*1.1*	0.1	0.2	0.3
LU	0.9	1.0	1.3	1.4	1.7	2.0	*1.1*	0.1	0.2	0.2
NL	0.5	0.5	0.6	0.8	1.0	1.2	*0.7*	0.0	0.0	0.0
AT										
PT										
FI	1.7	2.0	2.4	3.5	4.2	4.3	*2.6*	0.1	0.3	0.4
SE	3.8	3.8	4.0	5.5	6.0	6.5	*2.7*	0.1	0.2	0.2
UK	1.0	1.5	2.2	2.8	3.4	4.0	*3.1*	0.4	1.4	2.0
CY										
CZ	0.3	0.4	0.6	0.9	1.1	1.3	*1.0*	0.1	0.3	0.5
EE										
HU										
LT	0.5	0.6	0.7	0.8	0.9	1.1	*0.6*	0.0	0.1	0.2
LV	0.4	0.6	0.9	1.0	1.3	1.5	*1.1*	0.1	0.4	0.7
MT	0.9	0.9	0.9	1.1	1.2	1.2	*0.4*	0.0	0.0	0.0
PL	0.1	0.1	0.1	0.2	0.2	0.2	*0.1*	0.0	0.0	0.0
SK	0.7	0.8	0.9	1.0	1.4	1.7	*1.0*	0.0	0.1	0.2
SI	0.9	1.1	1.4	1.6	2.2	2.5	*1.6*	0.0	0.0	0.1
EU25	*0.8*	*1.0*	*1.2*	*1.5*	*1.8*	*2.1*	*1.3*	*0.1*	*0.3*	*0.5*
EU15	*0.9*	*1.0*	*1.2*	*1.6*	*1.9*	*2.2*	*1.4*	*0.1*	*0.3*	*0.5*
EU10	*0.2*	*0.3*	*0.4*	*0.4*	*0.6*	*0.7*	*0.4*	*0.0*	*0.1*	*0.1*

Note: EU25, EU15 and EU10 – average weighted by GDP

9.4. Increase in formal care – all people receive formal care in institutions

Scenario A-IV examines the impact of a similar change in policy setting, where the people who no longer receive informal or no care is assumed to receive formal care in institutions. This scenario explores the policy option of providing formal care in institutions, which is relatively more costly than formal care at home. Table 9-5 shows the projection results. The increase in supply of formal care leads to higher public expenditure on long-term care; public spending over the projection period would increase by 1.6 p.p. (1.7 p.p. in the EU15 and 0.8 p.p. in the EU10).

Table 9-5 Projection results for the scenario *"increase in formal care" (A-IV)*

	Projected spending as % of GDP							*Difference as % of GDP compared to pure demographic scenario*		
	2004	**2010**	**2020**	**2030**	**2040**	**2050**	***2004-2050***	**2010**	**2030**	**2050**
BE	0.9	1.0	1.3	1.6	2.1	2.4	*1.5*	0.1	0.2	0.3
DK										
DE	1.0	1.2	1.7	2.0	2.6	3.2	*2.2*	0.2	0.6	0.9
GR										
ES	0.5	0.7	1.0	1.2	1.6	2.1	*1.6*	0.2	0.6	1.3
FR										
IE	0.6	0.7	0.8	1.1	1.4	1.8	*1.2*	0.1	0.3	0.5
IT	1.5	1.8	2.4	2.7	3.2	3.9	*2.3*	0.3	0.9	1.5
LU	0.9	1.1	1.5	1.6	2.0	2.3	*1.4*	0.2	0.4	0.6
NL	0.5	0.9	1.5	2.3	2.9	3.3	*2.8*	0.4	1.4	2.1
AT										
PT										
FI	1.7	2.1	2.7	3.9	4.7	4.8	*3.1*	0.2	0.7	0.9
SE	3.8	4.0	4.4	6.0	6.5	7.1	*3.3*	0.2	0.7	0.8
UK	1.0	1.3	1.7	2.3	2.7	3.2	*2.2*	0.3	0.8	1.2
CY										
CZ	0.3	0.4	0.5	0.8	1.0	1.1	*0.8*	0.1	0.2	0.4
EE										
HU										
LT	0.5	0.8	1.1	1.2	1.6	1.9	*1.4*	0.2	0.6	1.0
LV	0.4	1.2	2.6	3.0	3.7	4.6	*4.2*	0.8	2.4	3.7
MT	0.9	0.9	0.9	1.1	1.3	1.3	*0.4*	0.0	0.0	0.0
PL	0.1	0.2	0.3	0.4	0.5	0.6	*0.5*	0.1	0.2	0.4
SK	0.7	0.9	1.0	1.2	1.6	2.0	*1.3*	0.1	0.3	0.6
SI	0.9	1.5	2.3	2.9	4.0	4.7	*3.8*	0.4	1.3	2.3
EU25	*0.8*	*1.0*	*1.4*	*1.7*	*2.0*	*2.4*	*1.6*	*0.2*	*0.5*	*0.8*
EU15	*0.9*	*1.1*	*1.4*	*1.8*	*2.1*	*2.5*	*1.7*	*0.2*	*0.5*	*0.8*
EU10	*0.2*	*0.4*	*0.5*	*0.7*	*0.9*	*1.0*	*0.8*	*0.1*	*0.3*	*0.5*

Note: EU25, EU15 and EU10 – average weighted by GDP

10. METHODOLOGY FOR CORE PROJECTIONS OF UNEMPLOYMENT BENEFIT EXPENDITURE

In order to assess whether and by how much the projected changes in labour market performance will affect UB expenditure (as % of GDP), a simple methodology has been used.

The basic approach applied to the projections of UB expenditure generates projections of UB expenditure, expressed as a share of GDP, where average expenditure per head grows at the same rate as GDP per worker in each projection year.

Step 1 - Estimation of current per capita expenditure

In order to obtain current per capita spending, total UB expenditure (UB) in the base year can be decomposed according to the following identity:

$$ub_{pc}^{b} = \frac{UB^{b}}{UP^{b}}$$

Where UB^{b} = total expenditure on UB in base year in national currency;

UP^{b} = numbers of unemployed persons in base year;

ub_{pc}^{b} = average UB expenditures for each unemployed persons in base year expressed in national currency;

b = base year.

Step 2 Expressing per capita expenditure in terms of productivity level (GDP per employed person)

Base year UB expenditure for unemployed person (ub_{pc}^{b}) can be deflated by base-year GDP per worker, such that:

$$yub_{pc}^{b} = \frac{ub_{pc}^{b}}{\left(GDP^{b} / E^{b}\right)}$$

where: yub_{pc}^{b} = average UB expenditure for each unemployed person in the base year b, expressed as a share of base year GDP per worker;

E^{b} = total employment in base year; and

GDP^{b} = national GDP in base year.

Step 3 Matching the base-year profiles to the future labour market structure

The "deflated" per capita expenditure for the base year yub_{pc}^{b} is then matched to the unemployment vector UP^{t} for each of the projection years t from 2000-2050 as follows:

$$yub_{pc}^{b} * UP^{t} = \frac{ub_{pc}^{b}}{\left(GDP^{b}/E^{b}\right)} \times UP^{t} = \frac{\overline{UB^{t}}}{\left(GDP^{t}/E^{t}\right)}$$

where $\overline{UB^{t}}$ = projected total UB expenditure in projection year t (the bar above the variable denotes that it is projection); and

This step generates the projected total UB expenditure expressed as a share of GDP per worker, under the implicit assumption that UB expenditure per head grows at the same rate as GDP per worker. This, in turn, implies (see equation 3 in the main test) unchanged unemployment benefit schemes (mainly gross replacement rates, coverage, take-up ratio) and a constant wage share in income distribution, that is, average wage per capita grows at the same rate as labour productivity (GDP per worker).

Step 4 - Expressing the results as a share of projected national GDP for each projection year

The results can then be expressed in terms of projected national GDP for each of the projection years by dividing by projected employment levels as follows:

$$\frac{\overline{UB^{t}}}{GDP^{t}} = \frac{yub_{pc}^{\ b} * UP^{t}}{E^{t}}$$

Thus, projections of UB expenditure as a share of GDP can be generated using only UB expenditure and GDP levels in the base year, and existing projections for the unemployed and employed persons.

11. THE APPROACH USED AT EU LEVEL TO ASSESS THE SUSTAINABILITY OF PUBLIC FINANCES

11.1. Background and approach

11.1.1. The mandate from the European Council

The projected demographic change, with the old-age dependency ratio doubling over the coming decades in the EU, has led to growing concerns regarding the long-term sustainability of public finances. Since the launch of the euro, in 1999, the EU has sought to integrate an examination of the sustainability of public finances into the existing EU framework for the surveillance of Member States' economic and budgetary policies, in line with the conclusions of the Stockholm European Council (March 2001). The Stockholm European Council agreed that the Council should regularly review the long-term sustainability of public finances, including the expected strains caused by the demographic changes ahead in the context of the stability and convergence programmes and outlined a three-pronged strategy to address the economic and budgetary consequences of ageing populations, i.e. reducing public debt at a fast pace, raising employment rates especially amongst women and older workers, and reforms of pensions and health-care systems including appropriate recourse to the funding of public pensions.

The importance attached to ensure sustainability of public finances was confirmed by the Barcelona European Council in March 2002 and the March 2003 ECOFIN Council. In addition, the 20 March 2005 ECOFIN Council emphasised long-term sustainability issues in the context of the agreement of the 2005 reform of the Stability and Growth Pact[7]. Specifically, the Council stressed that sufficient attention should be given in the surveillance of budgetary positions to debt and sustainability so as to safeguard the sustainability of public finances in the long run.

The Commission and the Council is therefore regularly producing the assessment of long-term sustainability of public finances in the context of the Stability and Growth Pact. These assessments are an integral part of budgetary surveillance of the Stability and Convergence Programmes[8]. An overview of the assessments of public finance sustainability is available in the Commission's Public Finances in EMU reports[9].

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[7] The new Stability and Growth Pact entered into force with the adoption of: (i) Council Regulation (EC) No 1055/2005 amending Regulation (EC) No 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies; and, (ii) Council Regulation (EC) No 1056/2005 amending Regulation (EC) No 1467/97 on speeding up and clarifying the implementation of the excessive deficit procedure.

[8] See the Commission's web-site for all information relating to the implementation of budgetary surveillance and the Stability and Growth Pact, available at: http://europa.eu.int/comm/economy_finance/about/activities/sgp/main_en.htm.

[9] See European Commission (2005), Public Finances in EMU – 2005 and earlier editions of this report, available at: http://europa.eu.int/comm/economy_finance/publications/publicfinance_en.htm

11.1.2. An assessment based on quantitative indicators and qualitative information

In the absence of an agreed definition in the literature as to what constitutes a sustainable public finance position, a pragmatic approach was adopted. Sustainability of public finances is assessed against the government's intertemporal budget constraint and the budgetary requirements of EMU; in particular, the Treaty requirement to keep debt levels below the 60% of GDP. At the same time, it was recognised that sustainability of public finances is a multifaceted policy challenge. Aside from avoiding deficits and debt accumulation, sustainability in addition requires that tax burdens remain at reasonable levels and that other non-age-related expenditures (infrastructure, R&D) are not squeezed out.

In recognition of this, the Commission's and the Council's assessments examines both quantitative and qualitative information, aiming at capturing the degree of budgetary risks associated with current policies and ageing populations. The approach to assess public finance sustainability in the EU has been broadly similar since 2001 when the first exercise was carried out, though it is important to note that a number of improvements have been undertaken in order to enhance the quality of the assessment.

In view of ensuring comparable analysis and assessments of the sustainability of public finances in the EU, the EPC considers that long-term projections made within the context of the common projections exercise should be used. The importance of the common budgetary projections is underlined by the 2005 reform of the Stability and Growth Pact and the Code of Conduct, according to which the common projections should be included in the annual stability and convergence programmes. These projections will form the basis of the assessment of public finance sustainability. This will contribute to increase the comparability of the projections across countries, with positive effects on the assessment of public finance sustainability made by the Commission and the Council[10].

11.1.3. Projecting debt on the basis of long-term budgetary projections

The main quantitative tool used in the EU surveillance of sustainability of public finances is extrapolation of debt, with budgetary developments incorporating long-term projections of government expenditure that evolve in line with demographic projections, thus indicating the budgetary impact of ageing populations. Based on the long-term budgetary projections, sustainability gap indicators provide a gauge of the scale of budgetary adjustment required for a Member State to reach a sustainable public finance position over the long term as measured by the different definitions used.

The extrapolation of the debt to GDP ratio relies on several assumptions:

- Tax revenues remain constant as a share of GDP over the projection period[11];

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[10] The new Code of Conduct, the 'Specifications on the implementation of the Stability and Growth Pact and Guidelines on the format and content of Stability and Convergence Programmes' is available at: http://europa.eu.int/comm/economy_finance/about/activities/sgp/codeofconduct_en.pdf

[11] The EPC (2001) considered that if national projections of changes in the revenue-to-GDP ratio due to ageing populations are available, they should be considered by the Commission and the Council in their assessments of public finance sustainability. In the 2004 assessment round of the Stability and Convergence Programmes made by the Commission and the Council, changes in the tax ratio were included in the

- Projected age-related related expenditures evolve in line with the available demographic projections;
- Non-age related primary expenditures remain constant as a share of GDP at the last year covered by the programme over the projection period[12];
- The GDP deflator is fixed at 2% for the whole projection period;
- The GDP real growth rate is country specific and is projected using the commonly agreed assumptions in the current exercise[13];
- an assumption of a real interest rate of 3% for all countries is made in the current exercise[14].

The treatment of temporary budgetary effects due to the cycle or to one-off measures has developed significantly over time. In the first two waves of assessment (2001 and 2002), the budgetary position of the last year of the programme was measured in nominal terms (not adjusted for the cycle). This implied that temporary budgetary effects were assumed constant over time. Since the 2003 assessment, the budgetary figures have been corrected for the cycle and in the 2004 assessment they were also corrected for one-off measures.

The debt concept used by the Commission is Maastricht gross debt. However, governments may hold assets which contribute positively to the sustainability of public finances. Since reducing debt or accumulating liquid assets in public pension schemes, has a similar effect on fiscal sustainability – with the latter strategy however not reflected in the gross debt measure – these are taken into account in the analysis of public finances sustainability, i.e. an *adjusted gross debt* measure is calculated (see Annex 11). For several countries, this adjustment has a profound impact on the evolution of debt.

These debt projections are made assuming that stock-flow adjustments (SFA) are zero over the projection period. Existing plans (e.g. privatisations that affect debt but not the deficit) are included during the period covered by the programme according to information provided in the SCPs).

It is important to recall that the purpose of debt extrapolation is to signal possible imbalances on the basis of current policies and projected age-related expenditure trends. However, being a mechanical, partial equilibrium analysis[15], projections are in some cases bound to show

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Stability and Convergence Programmes for seven Member States (Denmark, Germany, the Netherlands, Sweden, Latvia, Lithuania and Estonia), which were incorporated in the sustainability analysis.

12 These include mainly public investment, other social expenditure apart from education, health and pensions, purchases of goods and services not due to age-related expenditures, compensation of employees (excluding the staff in education and health care sectors). The Commission took into account the decline in the non-age related expenditures in the case of the UK only. The dynamics reflects the current set of legislation in place, according to which most non-pension social benefits will rise in line with prices after 2009-10, thus reducing their share of GDP.

13 In the 2004 assessment round of the Stability and Convergence Programmes made by the Commission and the Council, real GDP growth rates used in the sustainability analysis was taken from the programmes for almost all countries.

14 In the assessments made during 2001-2004, the assumed nominal interest rate was assumed to be around 5.5% (1.75% real growth rate in the EU15 plus 2% inflation in line with the ECBs target plus an interest-growth rate differential of 2%). In the current exercise, a real interest rate of 3% is assumed for all 25 Member States plus 2% inflation, i.e. a 5% nominal interest rate.

15 For example, the interest rate does not depend on the level of debt.

highly accentuated profiles. As a consequence, the projected evolution of debt levels is not a forecast of likely or even possible outcomes and should not be taken at face value. Instead, the indicators are a tool to facilitate policy debate and at best provide an indication of the timing and scale of emerging budgetary challenges that could occur on the basis of 'no policy change'. In practice, it is likely that governments would respond to either explosive debt trajectories or the implosion of debt leading to the accumulation of large net assets.

11.1.4. Quantitative indicators

Based on the long-term budgetary projections and the assumptions given in section 8.1.3, sustainability gap indicators provide an indication of budgetary adjustment required for a Member State to reach a sustainable public finance position over the long term as measured by the different definitions used. On the basis of the work of the Economic Policy Committee (2001 and 2003), two indicators are used to quantify the sustainability of public finances based on the debt projections. The indicators are described in detail in Annex 9.

S1 shows the difference, the sustainability gap, between the constant revenue ratio as a share of GDP required to reach a debt ratio in 2050 of 60% of GDP and the current revenue ratio[16]. Formally, the S1 indicator is a sum of three terms.

$$S_1 = \underbrace{rD_{t_0} - PB_{t_0}}_{A} + \underbrace{\frac{r(D_{t_0} - 60)}{(1+r)^{2050-t_0} - 1}}_{B} \underbrace{- \frac{\sum_{t=t_0+1}^{2050} \frac{\Delta PB_t}{(1+r)^{t-t_0}}}{\sum_{t=t_0+1}^{2050} \frac{1}{(1+r)^{t-t_0}}}}_{C} \qquad (1)$$

where:

D_t gross government debt (including pension funds assets) at date t relative to GDP

PB_t structural primary balance, i.e. cyclically-adjusted primary balance net of one-off and temporary measures at date t relative to GDP

ΔPB_t change in structural primary balance $PB_t = PB_0 + \Delta PB_t$ relative to GDP

r difference between nominal interest rate and nominal GDP growth rate[17].

The first term (A) is a condition concerning the initial budgetary position. The debt/GDP ratio increases by the difference between the nominal interest rate and the nominal growth rate. Should the initial structural primary balance exactly compensate for this increase, the debt/GDP ratio would remain stable and no adjustment would be necessary. However, if the

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[16] The sustainability gap indicators (S1, S2) do not necessarily suggest that taxes should be increased; strengthening the fiscal position by permanently reducing the level of non-age related primary spending could be preferable and has the same impact.

[17] The GDP growth assumptions set up in the AWG varies over time in line with development of labour supply while the real interest rate is set at 3% for the entire projection period, implying a non-constant discount rate. Formulas with a non-constant interest-growth differential are given in Annex 1. For presentational purposes, the formulae here (S1 and S2) are given under the assumption that the differential between nominal interest rate and nominal GDP growth rate is constant.

initial structural primary balance is not sufficient, the debt/GDP ratio would be on an explosive path and the sustainability gap would be positive.

The S1 indicator is set so that (adjusted) government debt will converge towards 60% of GDP at the end of the projections period: this is ensured by the second term (B).

Finally, because of the impact of ageing on primary expenditure, the structural primary balance with unchanged polices, is generally bound to decrease. The third term (C) calculates the discounted average of future (up to 2050) changes in the structural primary balance compared with the base year.

However, S1 only takes into account changes in the structural primary balance up to 2050, which in most cases underestimates the cost of ageing. This is because the impact of ageing is generally larger in 2050 (and therefore, until infinity, given the impact of ageing is assumed to remain constant afterwards) than the average impact of ageing between today and 2050. The government's inter-temporal budget constraint may then not be respected.

S2 shows the difference, the sustainability gap, between the constant revenue ratio as a share of GDP that guarantees the respect of the inter-temporal budget constraint of the government, i.e. that equates the actualized flow of revenues and expenses over an infinite horizon, and the current revenue ratio. In this case, the budgetary adjustment is such that no other reform would be needed to ensure long-term sustainability. Formally, the S2 indicator is a sum of two terms[18].

$$S_2 = \underbrace{rD_{t_0} - PB_{t0}}_{D} \underbrace{- r \sum_{t=t_0+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}}}_{E} \qquad (2)$$

The first term (D) is the same as (A) in S1: it ensures that the debt/GDP ratio remains constant, whatever its initial level: there is therefore no constraint on the level of debt. The second term (E) is very similar to the term (C) for S1 except that it takes into account changes in the structural primary balance compared with the base year over an infinite horizon rather than up to 2050.

It is the main indicator ensuring sustainability over infinity. To calculate this indicator, assumptions on developments after the end of the projection period are needed. Specifically, the structural primary balance as a share of GDP, the interest rate and the growth rate are assumed to remain constant after 2050, implying that no further budgetary impact of ageing is assumed after that date.

The S2 indicator can be expressed in terms of a *required primary balance (RPB)* in order to give a clear indication of the medium-term budgetary policy implications of achieving sustainable public finances over an infinite horizon. The RPB measures the average level of the structural primary balance over the first five years of the projection after the programme period that would satisfy the government's inter-temporal budget constraint. The level of the structural primary balance would decline in the future, in line with projected increases in expenditure, but the RPB would be a sufficient starting position to cover the entire cost of ageing over an infinite horizon. Thus, the RPB can be used to compare the actual or planned budgetary strategy with the structural primary balance required for fulfilling the inter-

[18] See also footnote 22.

temporal budget constraint. Formally, the RPB is expressed as follows (in the case when 2009 is the first year of the projection after the programme period).

$$RPB = \frac{PB_{2009} + PB_{2010} + ... + PB_{2013}}{5} + S_2 \qquad (3)$$

For these indicators, two scenarios are calculated: (i) the stability/convergence programme scenario which assumes that the medium-term budgetary plans as set out in the stability and convergence programmes are achieved. This means that the starting point for the projections is the last year of the programme period; (ii) the 2005 scenario which assumes that no changes in the structural primary balance takes place after the current year. Also in this case, the starting point for the projections is the last year of the programme period but the structural primary balance is kept unchanged at its level in 2005 until the last year of the programme period. The purpose of having also the 2005 scenario is to demonstrate the long-term impact on debt developments of departing from the programme scenario as set down in Member States' stability and convergence programmes.

A further improvement in the next sustainability assessment, endorsed by the EPC, is to perform a sensitivity test that highlights the cost of delay in achieving budgetary consolidation. For countries with a positive S2, it implies that the size of the required adjustment will increase in the future. A detailed description is given in Annex 2.

A limitation of the indicators is that they provide limited guidance on what is the appropriate budget target which Member States should aim at in light of the expected costs of ageing populations. In particular, a positive "sustainability gap" does not necessarily imply that taxes should be increased. Instead an appropriate combination is needed of changes on the revenue side, reforms to reduce the level of non-age related primary spending and reforms of pension and health care systems to curtail the impact of ageing on expenditure growth needs. This requires a case-by-case assessment examining the underlying causes of potential budgetary imbalances.

Qualitative considerations are therefore central in order to interpret the information provided by the sustainability indicators.

Taking on board qualitative information

In addition to the quantitative information used in the analysis described above, incorporating qualitative features when making an overall assessment is a key aspect in the interpretation of the results obtained. These factors allow identifying and qualifying the nature and size of risks countries are facing.

The main qualitative features shaped into the assessment are dealing with: the budgetary position and the level of the debt ratio, the impact of structural reforms, the reliability of the projections and the current level of the tax burden. These qualitative features considered in the assessment are described further in Table 11-1 below, which draws on the agreement with the EPC[19].

[19] See the EPC report "The impact of ageing populations on public finances: overview of analysis carried out at EU level and proposals for a future work programme", EPC/ECFIN/435/03 final, 22.10.03.

Table 11-1 Qualitative factors taken on board in reaching policy recommendations on the sustainability of public finances

Area	Issue	Concern about sustainability	Explanation
Public debt	High level of outstanding public debt well above 60% of GDP reference value	Increases	▪ Vulnerability to negative interest rate or economic growth rate shocks. ▪ A higher than average primary surplus required for several decades which in practice may be hard to achieve given competing budgetary pressures; in absence of a sufficiently high primary surplus, debt could be on an unsustainable path even without considering the projected future budgetary pressures stemming from ageing populations.
	Low debt levels	Decreases	▪ Reverse of the arguments above.
	Debt increasing financial operations and large or increasing contingent liabilities	Increases	▪ Large positive stock-flow adjustments linked to debt-increasing financial operations. ▪ Particularly relevant in MS where debt reduction is central to meet the budgetary costs of ageing.
Budget balance	Contributions to funded pension schemes	Decreases	▪ Contributions to funded pension schemes recorded outside general government may imply lower social security contributions recorded in general government, and thus result in higher recorded public deficit levels.
	Sensitivity of projections to key parameters	Increases	▪ High sensitivity of results to demographic factors, indexation rules and numbers of cross-border workers. An appreciation of risk factors complements the analysis of projected changes in public expenditures.
Robustness of age-related expenditure projections	Underlying assumptions and coverage of budgetary projections	Increases	▪ Earlier cut-off dates than 2050 may underestimate budgetary impact as effects of baby-boom generation on population size and age- structure may not have peaked. ▪ Incomplete coverage of or within expenditure items underestimates risks to sustainability. ▪ Projections are in some cases based on assumptions of large increase in labour force participation rates. This may require additional policy measures to be taken.
	Methodological differences	Reduces comparability	▪ If non-demographic drivers of expenditure are assumed in the projections for a particular country (e.g. a trend rise in health-care expenditure) but not in others, risks to sustainability would be overestimated vis-à-vis other countries, making it difficult to compare sustainability risks across countries.

Tax ratio	High tax ratio	Increases	▪ The viability and desirability of high tax ratios (e.g. above 50% of GDP) over long term may be affected by increased factor mobility affecting tax bases. Also, some governments have the stated objective of lowering the tax burden. The challenge is to do so while preserving sustainable public finance positions and adequate provision of public services. ▪ In the case long-term projections of revenue items made at national level are available, such projections need to be explained so that its impact can be identified and assessed; a rising tax burden may have an adverse impact on economic growth.
	Low tax ratio	Decreases	▪ Low tax ratio provides greater margin to raise taxes (if necessary) to meet increased age-related expenditures.
The impact of structural reforms	Pension / health-care system reforms	Decreases	▪ Efficient and effective pension and health care systems contribute to reduction of the budgetary risks.
	Risk of implicit contingent liabilities related to performance of private occupational schemes	Increases Limited	▪ In some MS, the performance of overall pension system will be increasingly reliant on private occupational schemes and individual pension savings. Pressure for higher public spending could emerge (implicit contingent liability) if such schemes have insufficient coverage or fail to generate returns that secure an adequate level of retirement income. ▪ In some countries success of reforms partially depends on an effective regulatory and taxation framework for private occupational and individual pension schemes, and thus allows citizens to supplement their retirement income.

An overall assessment of risks to public finance sustainability

On the basis of the considerations above, the results of the quantitative indicators as well as the qualitative considerations, an overall assessment of public finance sustainability is reached. All Member States will face the budgetary challenge that ageing population represents over the coming decades. The aim of the sustainability assessment is to arrive at a view on how important the risks to public finance sustainability are in a country and where they mainly stem from.

An overall assessment of risks to public finance sustainability should be characterized by whether the country concerned appears to face low, medium or high risks. This approach has several advantages, as it: (i) recognises that ageing population represents a budgetary challenge for all countries to varying degrees; and, (ii) provides a clear distinction between the different degrees of risks to public finance sustainability countries are facing and where do they come from. Since this analysis is an integral part of fiscal surveillance conducted by the Commission and the Council, it is important to identify where major risks are related to current, or medium-term, budgetary developments.

11.2. Increased focus on the sustainability of public finances: improvements and future work

11.2.1. Agreed improvements to the analysis framework and notably the indicators for the 2005 updates of stability and convergence programmes and beyond

There is consensus agreement that efforts to assess the sustainability of public finances as part of the evaluation of stability and convergence programmes have proved useful, and they have helped shape the policy debate at both EU and national level. The 2005 reform of the Stability and Growth Pact confirms the importance that policy makers assign to ensuring sustainability of public finances in the EU. This section outlines the changes to be made to the analysis framework and the existing indicators that were agreed by the EPC following a debate in the AWG.

First, move towards a more comprehensive assessment of sustainability. The EPC considers that, in the context of fiscal surveillance, a comprehensive assessment of the sustainability of public finances with a multi-annual cycle (three or five years), and an annual update of the assessment of sustainability in the context of the Stability and Convergence Programmes should be made. This approach has several important merits: (i) risks to fiscal sustainability in a country are a long-term issue; (ii) a more comprehensive assessment is required in order to better identify the main risks to sustainability, including sensitivity tests, and; (iii) basing the sustainability analysis on the common EPC projections would ensure greater comparability across countries. The timing and length of the cycle should be synchronized with the updates of demographic projections by Eurostat and the budgetary projection exercise (due every three to five years).The annual update of the assessment would allow taking into account major reforms with direct budgetary impact, e.g. of the pension system, compared with the latest common projections, as well as important budgetary and economic developments in the short- to medium-term.

Second, continue to use the set of two indicators (S1 and S2) in the assessments (the indicators are explained in detail in Annex 1); and the additional information derived from the S2, the 'Required Primary Balance' (RPB). The EPC also considers that the cost of delay in achieving budgetary consolidation should be further highlighted in the analysis. This can be achieved through the introduction of a sensitivity test (described in detail in Annex 2). Moreover, the transparency of the analysis should be increased so that the impact of possible national estimates of budgetary items not covered by the common projection exercise (e.g. changes in the revenue/GDP ratio) in different Member States can be easily identified and quantified. The AWG and EPC considers that further work can be envisaged with respect to establishing principles for if and how account could be taken of changes in the budgetary items not covered by the common projections exercise in the calculation of the sustainability indicators. This would contribute to improved comparability of the analysis across countries, which is a key issue in the context of multilateral budgetary surveillance.

Third, the last round of SPC assessment took into account the assets of public pension funds, to better reflect the challenges for sustainability. In this context, to ensure a full consistency between all Member States, the EPC, based on a proposal by the Commission, has prepared a set of guidelines on reporting on public pension fund assets. Those guidelines will be taken into account in the forthcoming round of SCP assessments (the guidelines are given in Annex

11). They could be further developed after another ex-post examination of their application, if considered necessary in the light of the experience gained.

Fourth, for the 2005 assessment round, the commonly agreed underlying assumptions will serve as a reference when considering national projections included in the Stability and Convergence Programmes.

11.2.2. Implications of the reform of the Stability and Growth Pact

In the reformed Stability and Growth Pact, there is increased focus on sustainability. Structural reforms will be taken into consideration in the implementation of both the preventive and the corrective part of the Pact. Specifically, the medium-term objective for the government's budgetary position may be adjusted, or the adjustment path towards it, in the event a major structural reform is implemented. Only major reforms which have direct long-term cost-saving effects, including by raising potential growth, and therefore a verifiable positive impact on the long-term sustainability of public finances, will be taken into account. Member States should include a detailed cost-benefit analysis in their stability and convergence programmes of the short-term costs – if any – and of the long-term benefits of the reforms from the budgetary point of view. The EPC considers that an assessment of the long-term direct budgetary impact of reforms – especially those affecting expenditure items covered by the common projections exercise - could benefit from a peer review within the AWG.

In addition, implicit liabilities (related to increasing expenditures in the light of ageing populations) should be taken into account in the definition of the medium-term objective for the government's budgetary position, as soon as criteria and modalities for doing so are appropriately established and agreed by the Council. By the end of 2006, the Commission should report on progress achieved towards the methodology for completing the analysis by incorporating such implicit liabilities[20]. The EPC has expressed an interest in collaborating with the Commission on this issue.

[20] In accordance with the ECOFIN Council report of 20 March 2005 "Improving the implementation of the Stability and Growth Pact".

12. DEFINITIONS AND PROPERTIES OF DEBT PROJECTIONS AND THE SUSTAINABILITY INDICATORS

Case 1: the difference between the nominal interest rate and nominal GDP growth is constant[21]

1. The inter-temporal budget constraint and the S2 indicator

There is no agreed definition on what constitutes a sustainable position for the public finances. One can however impose that the debt (relative to GDP) remains bounded at any time in the future. This implies (see proof in appendix) that the actualised value of future structural primary balances should cover the current level of debt, i.e.:

$$\boxed{D_{t_0} - \sum_{t=t_0+1}^{\infty} \frac{PB_t}{(1+r)^{t-t_0}} = 0} \quad (1)$$

This condition is referred to as the inter-temporal budget constraint.

The S2 indicator is closely linked to this constraint. Indeed, given an initial debt, an interest-growth differential assumption and a future path of the structural primary balance, condition (1) has no reason to be checked. The S2 indicator is thus the change in the structural primary balance for every future year that ensures that condition (1) is true.

$$\boxed{S_2 = \underbrace{rD_{t_0} - PB_{t0}}_{D} \underbrace{- r \sum_{t=t_0+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}}}_{E}} \quad (2).$$ (See proof in appendix)

The first term (D) is a condition concerning the initial budgetary position: if the structural primary balance (relative to GDP) remains unchanged in the future, the sustainability condition simply says that the structural primary balance should be equal to apparent real interest paid on the current level of debt. In that case, the level of debt would remain stable. Indeed, debt relative to GDP increases by the difference between nominal interest rate and the nominal growth rate. If the structural primary balance compensates for this increase, the debt relative to GDP will remain stable.

The second term (E) is a condition concerning future developments in the structural primary balance: the bigger the decrease of the structural primary balance, the higher the immediate rise in the structural primary balance should be to fully compensate those changes. (E) is simply a average of discounted changes in the structural primary balance.

[21] It is also supposed to be strictly positive.

2. The S1 indicator

S1 indicates the additional constant tax ratio required to reach a debt ratio in 2050 of 60% of GDP. The calculations are made for any date T in the future and for any level of debt D_T.

$$S_1 = \underbrace{rD_{t_0} - PB_{t_0}}_{A} + \underbrace{\frac{r(D_{t_0} - D_T)}{(1+r)^{T-t_0} - 1}}_{B} \underbrace{- \frac{\sum_{i=t_0+1}^{T} \frac{\Delta PB_i}{(1+r)^{i-t_0}}}{\sum_{i=t_0+1}^{T} \frac{1}{(1+r)^{i-t_0}}}}_{C} \quad (3)$$

As for S2, the S1 indicator is a sum of several terms:

The first term (A) is the same as in S2. If the initial conditions are satisfied and no change in the structural primary balance is forecasted, debt will remain constant. Contrary to S2, S1 also assumes that debt reaches a certain level of debt. This is ensured by the second term (B): it tends to be large if:

- the desired level of debt is small;
- the period of time given to reach this debt level is small;
- the initial debt is large.

The last term (C) is a condition concerning future developments of the structural primary balance. It is slightly different compared with the S2 indicator because S1 only takes into account changes in the structural primary balance up to 2050, which in most cases, underestimates the cost of ageing.

3. Comparison of S1 and S2

Given that $A = rD_{t_0} - PB_{t_0} = D$; $B \xrightarrow{T \to \infty} 0$; $C \xrightarrow{T \to \infty} r \sum_{t=t_0+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}} = E$

$$S_1(T, D_T) \xrightarrow{T \to \infty} S_2 \quad (4)$$

If the debt requirement is set at a very distant date in the future, the two indicators S1 and S2 will be very close but, but in practice, given the non so distant requirement (2050), S1 and S2 can be somewhat different.

Table A1.1 sums up the definition of S1 and S2: it proposes a decomposition of the two indicators that can be useful in the analysis to fully separate the impact of the current budgetary position, the debt requirement and the long-term development of primary expenditure.

Table A1.1: comparison of S1 and S2

	Current budgetary position		Debt requirement in 2050		Long-term changes in the primary balance
S1=	A= $rD_{t_0} - PB_{t_0}$	+	B= $\frac{r(D_{t_0} - D_T)}{(1+r)^T - 1}$	+	C= $-\frac{\sum_{i=t_0+1}^{T} \frac{\Delta PB_i}{(1+r)^{i-t_0}}}{\sum_{i=t_0+1}^{T} \frac{1}{(1+r)^{i-t_0}}}$
S2=	D= $rD_{t_0} - PB_{t_0}$	+	0	+	E= $-r \sum_{t=t_0+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}}$

(E) can be written as a weighted average of (C) and the change in the structural primary balance in 2050. So (E) is greater than (C) when the change in the structural primary balance in 2050 is greater than what it is on average between 2010 and 2050. Given that usually, the impact of ageing on expenditure reaches its maximum towards the end of the period, (E) is usually greater than (C).

Proof:

$$E = -r \sum_{t=t_0+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}} = -\frac{\sum_{t=t_0+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}}}{\sum_{t=t_0+1}^{\infty} \frac{1}{(1+r)^{t-t_0}}} = -\frac{\sum_{t=t_0+1}^{T} \frac{\Delta PB_t}{(1+r)^{t-t_0}} + \sum_{t=T+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}}}{\sum_{t=t_0+1}^{\infty} \frac{1}{(1+r)^{t-t_0}}}$$

$$E = \frac{C \sum_{i=t_0+1}^{T} \frac{1}{(1+r)^{i-t_0}} - \Delta PB_T \sum_{t=T+1}^{\infty} \frac{1}{(1+r)^{t-t_0}}}{\sum_{t=t_0+1}^{\infty} \frac{1}{(1+r)^{t-t_0}}} = \alpha C + (1-\alpha)(-\Delta PB_T)$$

Case 2: the difference between the nominal interest rate and nominal GDP growth is not constant

The interest-growth rate differential is often assumed to be constant. This is not the case for example in the EU's analysis of public finance sustainability, given that the real interest rate is constant for all EU25 countries while GDP growth projections are country-specific. Therefore, formulas with non-constant interest-growth rate differential are needed.

Lets introduce $\alpha_{i;j} = (1+r_i)(1+r_{i+1})...(1+r_j)$ if $i \le j$ and 1 otherwise.

The dynamics of debt is: $D_t = D_{t_0}\alpha_{t_0+1;t} - \sum_{i=t_0+1}^{t} PB_i \alpha_{i+1;t}$;

The inter-temporal budgetary condition is: $D_{t_0} = \sum_{i=t_0+1}^{\infty} \frac{PB_i}{\alpha_{t_0+1,i}}$

The S2 indicator is: $$\boxed{S_2 = \frac{D_{t_0}}{\sum_{i=t_0+1}^{\infty} \frac{1}{\alpha_{t_0+1,i}}} - PB_{t_0} - \frac{\sum_{i=t_0+1}^{\infty} \frac{\Delta PB_i}{\alpha_{t_0+1,i}}}{\sum_{i=t_0+1}^{\infty} \frac{1}{\alpha_{t_0+1,i}}}}\ (2\text{bis})$$

In the case where the interest rate/growth rate differential and the structural primary balance are constant after a certain date (here 2050):

$$\boxed{S_2 = \underbrace{\frac{D_{t_0}}{\sum_{i=t_0+1}^{2050} \frac{1}{\alpha_{t_0+1,i}} + \frac{1}{r_{2050}\alpha_{t_0+1,2050}}}}_{C} - PB_{t_0} - \underbrace{\frac{\sum_{i=t_0+1}^{2050} \frac{\Delta PB_i}{\alpha_{t_0+1,i}} + \frac{\Delta PB_\infty}{r_\infty \alpha_{t_0+1,2050}}}{\sum_{i=t_0+1}^{2050} \frac{1}{\alpha_{t_0+1,i}} + \frac{1}{r_\infty \alpha_{t_0+1,2050}}}}_{D}}\ (2\text{ter})$$

S1 is such that $D_T = D_{t_0}\alpha_{t_0+1;T} - \sum_{i=t_0+1}^{T}(PB_i + \Sigma_1)\alpha_{i+1;T}$

$$\boxed{S_1 = \frac{D_{t_0}\alpha_{t_0+1;T} - D_T}{\sum_{i=t_0+1}^{T} \alpha_{i+1;T}} - PB_{t_0} - \frac{\sum_{i=t_0+1}^{T} \Delta PB_i \alpha_{i+1;T}}{\sum_{i=t_0+1}^{T} \alpha_{i+1;T}}}\ (3\text{bis})$$

Appendix: proofs

Equation 1

Let's suppose the debt (relative to GDP) remains bounded at any time in the future.

It means that $\exists M$ such as $\left|D_t\right| = \left|D_{t_0}(1+r)^{t-t_0} - \sum_{i=t_0+1}^{t} PB_i(1+r)^{t-i}\right| < M$

So $\left|D_{t_0} + \sum_{i=t_0+1}^{t} PB_i(1+r)^{-i}\right| = \left|\frac{D_t}{(1+r)^{t-t_0}}\right| < \frac{M}{(1+r)^{t-t_0}} \xrightarrow{t \to \infty} 0$ because r is strictly positive.

$$\boxed{D_{t_0} - \sum_{i=t_0+1}^{\infty} PB_i(1+r)^{-(i-t_0)} = 0}\ (1)$$

Equation 2

The S2 indicator is the change in the structural primary balance compared with the base year for every future year that ensures that condition (1) is verified.

Mathematically, it can be written: $D_{t_0} = \sum_{t=t_0+1}^{\infty} \frac{PB_t + S_2}{(1+r)^{t-t_0}}$ (1).

Since the discount rate is strictly positive, $\sum_{t=t_0+1}^{\infty} \frac{1}{(1+r)^{t-t_0}} = \frac{1}{r}$.

$$D_{t_0} = \frac{\Sigma_2}{r} + \sum_{t=t_0+1}^{\infty} \frac{PB_t}{(1+r)^{t-t_0}} = \frac{S_2}{r} + \frac{PB_{t0}}{r} + \sum_{t=t_0+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}}$$

$$\boxed{S_2 = rD_{t_0} - PB_{t0} - r\sum_{t=t_0+1}^{\infty} \frac{\Delta PB_t}{(1+r)^{t-t_0}}} \quad (2).$$

Equation 3

The calculations are made for any date T in the future and for any level of debt in the future. The dynamics of the debt can be written:

$$D_t = D_{t_0}(1+r)^{t-t_0} - \sum_{i=t_0+1}^{t} PB_{t_0}(1+r)^{t-i} - \sum_{i=t_0+1}^{t} \Delta PB_i(1+r)^{t-i}$$

S_1 is such that $D_t = D_T$

$$S_1 = \frac{D_{t_0}(1+r)^{T-t_0} - D_T}{\sum_{i=t_0+1}^{T}(1+r)^{T-i}} - PB_{t_0} - \frac{\sum_{i=t_0+1}^{T} \Delta PB_i(1+r)^{T-i}}{\sum_{i=t_0+1}^{T}(1+r)^{T-i}}$$

Given $\sum_{i=t_0+1}^{T}(1+r)^{T-i} = \sum_{i=t_0}^{T-1}(1+r)^{i} = \frac{(1+r)^{T-t_0} - 1}{r}$

$$S_1 = \frac{rD_{t_0}(1+r)^{T-t_0} - rD_{t_0} + rD_{t_0} - rD_T}{(1+r)^{T-t_0} - 1} - PB_{t_0} - \frac{\sum_{i=t_0+1}^{T} \Delta PB_i(1+r)^{T-i}}{\sum_{i=t_0+1}^{T}(1+r)^{T-i}}$$

$$S_1 = rD_{t_0} - PB_{t_0} + \frac{r(D_{t_0} - D_T)}{(1+r)^{T-t_0} - 1} - \frac{\sum_{i=t_0+1}^{T} \Delta PB_i(1+r)^{T-i}}{\sum_{i=t_0+1}^{T}(1+r)^{T-i}}$$

$$\boxed{S_1 = rD_{t_0} - PB_{t_0} + \frac{r(D_{t_0} - D_T)}{(1+r)^{T-t_0} - 1} - \frac{\sum_{i=t_0+1}^{T} \frac{\Delta PB_i}{(1+r)^{i-t_0}}}{\sum_{i=t_0+1}^{T} \frac{1}{(1+r)^{i-t_0}}}} \quad (3)$$

13. A SENSITIVITY TEST FOR ASSESSING THE SUSTAINABILITY OF PUBLIC FINANCES: THE COST OF DELAY IN ACHIEVING BUDGETARY CONSOLIDATION

The AWG and EPC agreed with the introduction of a new sensitivity test showing the cost of delay in achieving budgetary consolidation. This test was proposed by Harry ter Rele, Dutch delegate in the AWG. It provides an estimate of the cost of delay in making a complete adjustment according to the old S1 and the S2 indicators. It further assumed a constant interest rate-growth rate differential. This Annex calculates the cost of a delay with non-constant interest rate for the currently used indicators, S1 and S2.

S2 indicator:

If the adjustment is made today, $D_{t_0} = \sum_{t=t_0+1}^{\infty} \frac{PB_t + S_2}{\alpha_{t_0+1;t}}$

If the adjustment is postponed in 5 years then, $D_{t_0} = \sum_{t=t_0+1}^{\infty} \frac{PB_t}{\alpha_{t_0+1;t}} + \sum_{t=t_0+1+delay}^{\infty} \frac{S_2^{'}}{\alpha_{t_0+1;t}}$

Relationships between the two indicators:

$$S_2^{'} = S_2 \frac{\sum_{t=t_0+1}^{\infty} \frac{1}{\alpha_{t_0+1;t}}}{\sum_{t=t_0+1+delay}^{\infty} \frac{1}{\alpha_{t_0+1;t}}} = S_2 \frac{\sum_{t=t_0+1}^{50} \frac{1}{\alpha_{t_0+1;t}} + \frac{1}{r_\infty \alpha_{1,50}}}{\sum_{t=t_0+1+delay}^{50} \frac{1}{\alpha_{t_0+1;t}} + \frac{1}{r_\infty \alpha_{1,50}}}$$

The cost of the delay is proportional to the initial tax gap indicator. If r is constant[22], the former formula is significantly reduced: $S_2^{'} = S_2 (1+r)^{delay}$

S1 indicator:

The expression for the cost of delay using the S1 indicator is:

$$S_1^{'} = S_1 \frac{\sum_{t=t_0+1}^{2050} \frac{1}{\alpha_{t_0+1;t}}}{\sum_{t=t_0+1+delay}^{2050} \frac{1}{\alpha_{t_0+1;t}}} = S_1 \left(1 + \frac{\sum_{t=t_0+1}^{delay} \frac{1}{\alpha_{t_0+1;t}}}{\sum_{t=t_0+1+delay}^{50} \frac{1}{\alpha_{t_0+1;t}}}\right)$$

[22] As in the Dutch proposal.

14. GUIDELINES FOR TAKING INTO ACCOUNT ASSETS OF PUBLIC PENSION FUNDS IN THE ASSESSMENT OF THE SUSTAINABILITY OF PUBLIC FINANCES[23]

The main quantitative tool used in the EU surveillance of the sustainability of public finances is extrapolation of debt, with budgetary developments incorporating long-term projections of government expenditure that evolve in line with demographic projections, thus indicating the budgetary impact of ageing populations. For this purpose, government debt is defined as general government gross debt (the Maastricht definition). Since reducing debt or accumulating assets in public pension funds has a similar effect on fiscal sustainability, which however is not reflected in the gross debt measure, the EPC in September 2004 considered it appropriate to take into account the position of fund assets in the analysis of long-term sustainability of public finances. It was agreed that the dynamics of consolidated gross debt should continue to be calculated, and that in addition it should, be adjusted for such pension fund assets. However, clarifications are needed to specify exactly which kind of assets would be used in making adjustments, and how to value them in a consistent way within the EU Member States.[24]

In the 2004 assessment of Stability and Convergence Programmes (SCP), the Commission took into account public pension fund assets for six countries (Denmark, Spain, Estonia, Ireland, Cyprus, Finland and Sweden)[25]. The proposed guidelines aim at clarifying the proposed adjustment, and providing reporting requirements for Member States for the preparation of the future assessments of SCP's, considering that also other Member States have such funds.

The EPC considers that public pension fund assets should be taken into account for the purposes of complementing the assessment of the long-term sustainability of the public finances in case they are:

- Consolidated liquid assets and their current value can be determined; and
- Accumulated for the strict purpose of covering pension-related expenditure, in accordance with the principle of "good governance"[26].

Reporting by Member States should include most recent estimates of:

- the consolidated liquid public pension fund asset recorded in general government that are established to cover pension-related expenditure, in most cases recorded in the social security funds sub-sector of general government (an example from the Finnish 2004 stability programme is given in the Annex); and
- the size of property income due to such consolidated liquid public pension fund assets.

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[23] These guidelines were adopted by the EPC, ECFIN/EPC(2005)REP/53512 final, 11.10.2005. See also the Commission report 'Public finances in EMU – 2005'.

[24] This proposal has been prepared on the basis of a note by the Commission "Guidelines for taking into account assets of public pension funds in the assessment of the sustainability of public finances" (doc. ECFIN/REP/53950/05) which has been discussed and agreed by the AWG on 19-20 September. For the mandate, see letter by the EPC President to the Chairman of the EFC Alternates of 22 September 2004 (doc. ECFIN/EPC(2004)REP/50308 final).

[25] In these cases, the funds concerned sizable and assigned assets for financing future public pension expenditure, and therefore had relevance for the assessment of the sustainability of public finances.

[26] The issues of good governance will be further explored for the 2006 SCP assessments.

Detail

11.1. Identifying liquid public pension fund assets

The EPC considers that three issues need to be addressed in this regard; i) which assets should be considered and how to value them ii) the use of funds to be considered; and iii) how to distinguish between national government bonds and other bonds.

i) Financial assets to be considered

On financial assets to be considered, all assets held by governments ease the budgetary pressures on the public finances arising from ageing populations in the longer term**.** However, for some financial assets, such as shares in non-floated publicly owned enterprises, current market value cannot be easily determined. This introduces a considerable element of uncertainty. In order to circumvent this obstacle, **only liquid assets for which a current value can be determined should be considered**. Such assets are currencies, deposits and tradable securities, for which a current market value can be determined. Information on financial assets is available from the financial accounts. The relevant liquid asset categories are given in Table 11.1. Member States should submit data on public pension fund assets according to this delimitation, specified further in the second point below, and reported according to their **current market value**[27].

Table 11.1 – Liquid financial assets*, financial accounts**

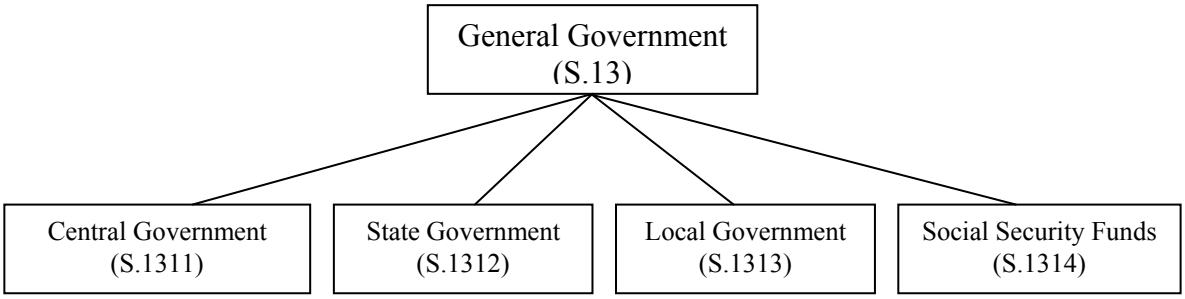
Code	*Description*
AF.21	Currency
AF.22	Transferable deposits
AF.29	Other deposits
AF.331	Securities other than shares; Short-term (bills)
AF.332	Securities other than shares; Long-term (bonds)
AF.34	Securities other than shares; Financial derivatives
AF.511	Shares and other equity; Quoted shares
AF.52	Shares and other equity; Mutual fund shares
** Assets of public pension funds with a strict purpose of covering pension-related expenditure should be included, see the second point below in the text.* *** Information from the financial accounts should be consolidated, see the third point below in the text.*	
Source: ESA95	

[27] According to the "*Manual on Sources and Methods for the compilation of ESA95 Financial Accounts*", first edition, Eurostat, 2002, p. 26, ESA95 states as a general rule for all assets (7.25) that all assets and liabilities are to be valued using current market prices on the date to which the balance sheet relates. This rule applies to financial assets (7.44): "Financial assets and liabilities should in principle be valued at current prices. They should be assigned the same value whether they appear as financial assets and liabilities." This manual provides additional information on the valuation of financial instruments and is available at: http://europa.eu.int/estatref/info/sdds/en/fina/fina_esa95_manual_sources_methods.pdf .

ii) Use of funds to be considered

Public pension fund assets that are established or legislated with a strict purpose of covering pension-related expenditure should be included, and fund assets accumulated for other purposes should not be included. They should be accumulated in accordance with the principle of "good governance"[28]. In most cases, such funds are recorded in the social security funds sub-sector (S.1314) of general government (S.13), see Figure 11.1. However, in some cases they are recorded in the central government sector (S.1311) rather than in the social security funds (S.1314). As the financial assets in the social security funds (S.1314) or elsewhere in general government (S.13) may comprise more than public pension fund assets that have a strict purpose of covering pension-related expenditure, Member States need to make this distinction. In order for the Commission to adjust Maastricht gross debt by taking into account public pension funds with a strict purpose of covering pension-related expenditure in the social security funds (S.1314) or elsewhere in the general government sector (S.13), Member States should provide this data according to the delimitation given in Table 11.1 above.

Figure 11.1 – General government and its sub-sectors in ESA95



Moreover, revenues (property income) from consolidated liquid public pension fund assets should be deducted from gross interest expenditure so that an adjusted primary balance can be calculated. Member States are asked to provide the size of property income that is due to holdings of such public pension fund assets.

Eurostat's decision of 2 March 2004 on the classification of pension schemes implies that funded defined contribution pension schemes should be classified outside government, the argument being that pensions to be paid depend on financial market developments (and on households' investment choices) and not on government decisions. According to Eurostat's press release of deficit and debt data for 2003 of 23 September 2004, Member States are required to implement this by March 2007 at the latest. Some countries have opted for this implementation period and include the flows of contributions and corresponding future pension payments of such schemes in general government whereas others exclude them at present.

[28] The issues of good governance will be further explored for the 2006 SCP assessments.

Public pension fund assets may be accumulated in defined benefit (DB) pay-as-you-go schemes, in funded defined contribution (DC) schemes or in buffer funds[29]. For consistency and for the purposes of assessing sustainability of public finances, data on liquid public pension fund assets, in DB or DC schemes, should be provided to the extent that the corresponding public pension expenditures are included in the long-term budgetary projections. In a funded defined contribution pension scheme, contributions should match liabilities by construction. In a defined benefit pay-as-you-go scheme, contributions may be accumulated in a fund in order e.g. to smoothen the 'required' contributions over time in order to reduce the intergenerational impact.

iii) National government bonds and other bonds

It should be borne in mind that **if the non-consolidated financial balance sheets are used, national government bonds need to be netted out.** By contrast, if the consolidated financial balance sheets are used, national government bonds have already been netted out. In the Maastricht definition of consolidated gross debt, national government bonds are already netted out. Hence:

- for those countries where consolidated balance sheets are available, the relevant financial assets are given net of national government bonds. No adjustments are needed; and

- for those countries where non-consolidated financial balance sheets are available, the relevant financial assets need to be reported net of national government bonds in order to avoid double-counting.

11.2. Adjusted gross debt net of liquid public pension fund assets

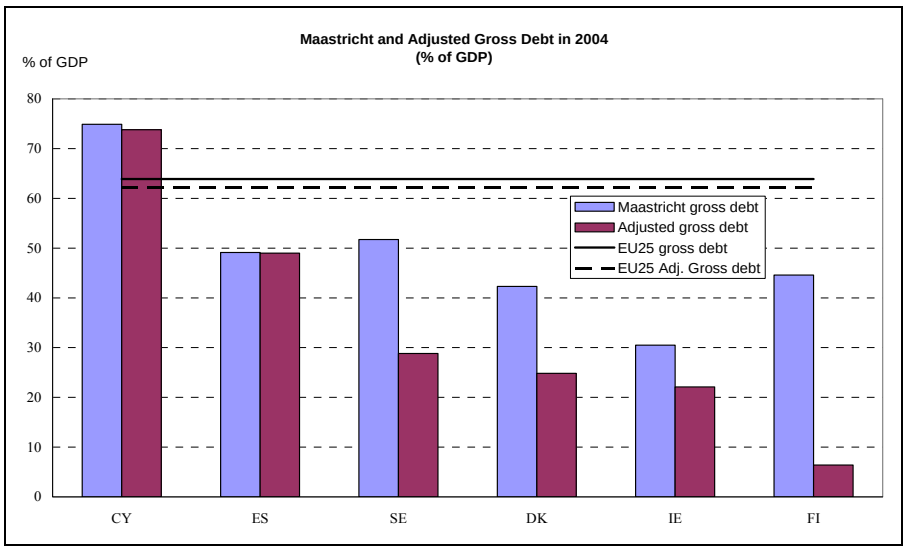
Adjusted gross debt equals Maastricht gross debt net of the consolidated liquid public pension fund assets, according to the delimitations described in section 11.1 above.

The projection of debt developments over the long run on the basis of Maastricht gross debt should be continued. In addition, sustainability indicators (S1, S2, RPB) are calculated on the basis of adjusted gross debt, thus taking into account public pension fund assets, where applicable. In the projections on such funds, the rate of return to be used will correspond to the interest paid on government bonds. Moreover, no further build-up or drawdown of pension fund assets is assumed.

Some countries have chosen to accumulate liquid assets in public pension funds, and for these this adjustment had a considerable impact (see graph below). This is particularly true for Finland, Sweden and Denmark, where the accumulation of funds has taken place for many years. Other countries have started accumulating funds recently. Maastricht gross debt in 2004 in EU-25 was 63.9% of GDP, dropping to 62.2% when looking at adjusted gross debt. The small difference between the debt definitions at the EU aggregate level reflects the fact that accumulation of liquid assets in public pension funds predominantly has taken place in a number of smaller Member States so far.

[29] Such as in France (the so-called Fonds de Réserve des Retraites), in Ireland or in Sweden. These funds should be accumulated strictly for the purpose of covering pension-related expenditure and comply with all the criteria set down in these guidelines.

Graph 11.1. Maastricht gross debt and adjusted gross debt in 2004



Source: European Commission (2005), Public Finances in EMU – 2005, European Economy.

ANNEX: Extract from the Finnish 2004 stability programme

The Finnish 2004 SP (pp. 31-32) contains information on holdings of liquid assets by public pension funds in: (i) the social security funds (Table 7) and; (ii) the central government (Table 8). These assets within the general government sector were reported according to the agreed delimitation, i.e. consolidated liquid assets for which a current market value can be determined.

6.3 Pension fund assets

Finland's employment pension system is a partially pre-funded, defined benefit system in which the benefits are determined according to the length of the employment history and the level of earnings. The pre-funding is collective and it does not affect the level of the pension; rather, it is intended to even out the pension contribution rate over time. Wit-

7. Financial assets of Employment pension institutions (sector 13141), million euros

	2000	2001	2002	2003
A. Non-consolidated liquid financial assets				
AF.21 Currency	0	0	2	0
AF.22 Transerable deposits	134	241	256	257
AF.29 Other deposits	276	228	880	379
AF.331Short term bills	1 279	2 125	1838	2 320
AF.332 Long term bonds	29 559	30 202	32 312	32 821
AF.34 Derivatives	105	20	80	111
AF.511 Quoted shares	15 347	13 016	10 518	13 807
AF.52 Mutual fund shares	323	3 093	2 740	4 693
Total	47 023	48 925	48 626	54 388
% of GDP	36.1	36.0	34.8	38.2
B. Liabilities of general government (sector 13) to pension funds (sector 13141)				
AF.331 Short term bills	20	5	29	26
AF.332 Long term bonds	10 322	6 887	4 830	4 666
Total	10 342	6 892	4 859	4 692
% of GDP	7.9	5.1	3.5	3.3
C. Consolidated liquid assets of pension funds (sector 13141) (= A-B)				
AF.21 Currency	0	0	2	0
AF.22 Transerable deposits	134	241	256	257
AF.29 Other deposits	276	228	880	379
AF.331 Short term bills	1 259	2 120	1 809	2 294
AF.332 Long term bonds	19 237	23 315	27 482	28 155
AF.34 Derivatives	105	20	80	111
AF.511 Quoted shares	15 347	13 016	10 518	13 807
AF.52 Mutual fund shares	323	3 093	2 740	4 693
Total	36 681	42 033	43 767	49 696
% of GDP				
28.2	31.0	31.3	34.9	
D. Total assets (sector 13141)				
Non-consolidated total assets	60 737	62 480	63 570	69 290
% of GDP	46.6	46.0	45.5	48.6
Consolidated total assets	49 179	54 667	57 781	63 737
% of DGDP	37.8	40.3	41.3	44.7

Source: Statistics Finland: Financial statistics

hin the National Accounts framework, the pension funds in the private and municipal sector are counted as social security funds. By contrast, the State pension institute is part of central administration. The tables 7-9 show the non-consolidated and consolidated market value of the pension funds in 2000-2003.

8. Market value of the investments made by the State pension institute

	2000	2001	2002	2003
	million euros			
Non-consolidated assets	3 843	4 427	4 841	5 795
Consolidated assets	1 522	1 686	3 099	4 549
	% of GDP			
Non-consolidated assets	3.0	3.3	3.5	4.1
Consolidated assets	1.2	1.2	2.2	3.2

Source: State pension institute.

9. Market value of the investments made by Employment pension instutions (sector 13141 and the State pension institute)

	2000	2001	2002	2003
	million euros			
Non-consolidated assets	64 580	66 907	68 411	75 085
Consolidated assets	50 701	56 353	60 880	68 286
Consolidated liquid assets	38 203	43 711	46 866	54 245
	% of GDP			
Non-consolidated assets	49.6	49.3	48.9	52.7
Consolidated assets	38.9	41.5	43.6	47.9
Consolidated liquid assets	29.3	32.2	33.5	38.1

Source: Statistics Finland: Financial statistics and State pension institute

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STATISTICAL ANNEX: COUNTRY TABLES

Belgium

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Life expectancy at birth											
males	75.5	75.8	76.9	77.9	78.9	79.7	80.3	80.9	81.4	81.8	82.1
females	81.6	81.9	82.9	83.9	84.8	85.5	86.1	86.6	87.0	87.2	87.5
Life expectancy at 65											
males	15.8	16.0	16.7	17.4	18.1	18.6	19.1	19.4	19.7	20.0	20.3
females	19.7	19.9	20.7	21.4	22.1	22.6	23.1	23.4	23.7	23.9	24.1
Net migration (thousand)	23.7	22.3	19.6	19.3	18.9	18.7	18.5	18.5	18.5	18.5	18.5
Net migration as % of population	0.23	0.21	0.19	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17
Population (million)	10.4	10.4	10.6	10.7	10.8	10.9	11.0	11.0	11.0	10.9	10.8
Population aged 0-14 as % of total	17.3	17.1	16.4	16.0	15.7	15.6	15.4	15.1	14.9	14.7	14.7
Prime age population (25-54) as % of total	42.7	42.5	41.5	40.1	38.6	37.2	36.3	35.9	35.5	35.4	35.2
Working age population (15-64) as % of total	65.6	65.6	66.1	65.1	63.8	61.9	59.9	58.6	58.0	58.0	57.9
Elderly population aged 65+ as % of total	17.1	17.2	17.5	18.9	20.5	22.5	24.6	26.2	27.1	27.3	27.3
Very elderly population aged 80 and over as % of total	4.1	4.3	5.0	5.6	5.9	6.0	7.1	8.1	9.3	10.3	10.8
lerly population aged 55+ as % of working age pop.15-64	7.2	7.2	7.4	7.9	8.5	9.1	9.7	10.0	10.2	10.1	10.1
Macroeconomic assumptions											
Real GDP (growth rate)	2.2	2.1	2.7	2.1	1.7	1.4	1.3	1.5	1.5	1.6	1.5
Labour input (growth rate)	1.1	0.8	0.9	0.3	-0.1	-0.4	-0.4	-0.2	-0.2	-0.1	-0.2
Labour productivity (growth rate)	1.1	1.3	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.0	1.1	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.1	0.2	0.4	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.8	1.8	2.4	1.9	1.4	1.2	1.2	1.5	1.6	1.7	1.7
GDP in 2004 prices (in billions of euro)	283	288	326	366	401	431	461	494	533	576	621
GDP per worker	21.8	22.2	24.7	27.5	29.8	31.7	33.6	36.0	38.9	42.2	45.9
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.3	0.1	-0.1	-0.3	-0.5	-0.6	-0.3	-0.1	-0.2	-0.1
Labour force (thousands)	4458	4495	4664	4766	4753	4667	4570	4507	4471	4442	4401
Participation rate (15-64)	65.4	65.7	66.8	68.6	69.1	69.2	69.5	69.8	70.1	70.0	70.0
young (15-24)	35.6	35.9	36.0	37.3	36.7	36.9	36.4	36.3	36.5	36.7	36.8
prime-age (25-54)	82.8	83.3	85.7	87.4	88.1	88.3	88.6	88.6	88.6	88.6	88.6
older (55-64)	29.9	30.5	33.8	39.6	42.8	43.2	43.3	43.7	44.7	44.7	44.9
oldest (65-71)	2.7	3.0	3.2	3.4	3.5	3.7	3.7	3.6	3.6	3.7	3.7
Employment rate (15-64)	60.2	60.6	62.1	64.1	64.6	64.7	65.0	65.3	65.5	65.5	65.5
Employment rate (15-71)	54.9	55.4	57.1	57.9	57.7	57.3	56.9	57.1	57.7	58.1	58.0
Employment growth (15-64)		1.0	0.9	0.2	-0.2	-0.4	-0.4	-0.2	-0.1	-0.1	-0.2
Unemployment rate (15-64)	7.9	7.7	7.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Dependency ratios:											
Share of older workers	7.5	7.8	9.5	11.7	13.5	13.8	13.4	12.8	12.8	13.0	13.4
Old-age dependency ratio (1)	26.1	26.3	26.4	29.1	32.2	36.3	41.1	44.7	46.7	47.0	47.2
Total dependency ratio (2)	52.5	52.4	51.2	53.6	56.8	61.5	66.9	70.6	72.3	72.4	72.6
Total economic dependency ratio	153.3	151.4	143.4	139.5	142.7	149.6	156.7	161.3	163.0	163.3	163.7
Economic old-age dependency ratio (15-64)	42.9	42.8	42.1	44.7	49.1	55.3	62.4	67.7	70.5	71.1	71.3
Economic old-age dependency ratio (15-71)	42.7	42.6	41.9	44.5	48.7	54.9	61.8	67.1	70.0	70.5	70.7

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Belgium

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	10.4	10.4	10.4	11.0	12.1	13.4	14.7	15.5	15.7	15.7	15.5
Old-age and early pensions, gross	9.6	9.6	9.6	10.3	11.3	12.7	14.0	14.8	15.1	15.0	14.9
Of which: earnings-related pensions, gross	9.5	9.5	9.5	10.2	11.3	12.6	13.9	14.7	15.0	15.0	14.8
Private sector employees, gross	6.3	6.3	6.4	6.9	7.7	8.7	9.6	10.2	10.4	10.3	10.2
Public sector employees, gross	3.2	3.2	3.1	3.3	3.5	3.9	4.2	4.5	4.6	4.7	4.6
Other pensions (disability, survivors), gross	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	10.4	10.4	10.4	11.0	12.1	13.4	14.7	15.5	15.7	15.7	15.5
Social security pensions, net	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:	:	:	:
Total pension contributions	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, assets	4.4	4.7	7.3	13.4	16.4	13.6	1.9	0.0	0.0	0.0	0.0
All pensions, assets	4.4	4.7	7.3	13.4	16.4	13.6	1.9	0.0	0.0	0.0	0.0
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net / Total pension exp., gross, %	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, number of pensioners , 1000 pers.	2501	2516	2635	2870	3144	3456	3748	3952	4052	4078	4050
All pensions, pensioners , 1000 pers.	2501	2516	2635	2870	3144	3456	3748	3952	4052	4078	4050
Number of pensioners aged 65+ , 1000 pers.	1860	1874	1960	2186	2435	2742	3073	3318	3443	3468	3447
Share of pensioners below age 65 as % of all pensioners	25.6	25.5	25.6	23.8	22.6	20.7	18.0	16.0	15.0	15.0	14.9
Average gross social sec. pension, 1000€ in 2004 prices	11.8	12.0	12.9	14.1	15.4	16.7	18.0	19.3	20.7	22.2	23.8
Average gross total pensions, 1000€ in 2004 prices	11.8	12.0	12.9	14.1	15.4	16.7	18.0	19.3	20.7	22.2	23.8
Output / Worker, 1000€ in 2004 prices	69.9	70.8	72.5	79.2	86.7	94.8	103.4	112.5	122.5	133.3	145.1
Social sec. benefit ratio	16.8	16.9	17.8	17.8	17.8	17.6	17.4	17.2	16.9	16.6	16.4
Total pension benefit ratio	16.8	16.9	17.8	17.8	17.8	17.6	17.4	17.2	16.9	16.6	16.4
Social security pensions, num of contributors, in 1000	4249	4297	4491	4623	4620	4545	4457	4394	4355	4323	4281
Average social sec. pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	170	171	170	161	147	132	119	111	107	106	106
High life expectancy; as % of GDP											
Social security pensions, gross	10.4	10.4	10.5	11.1	12.2	13.6	14.8	15.7	16.1	16.2	16.1
Old-age and early pensions, gross	9.6	9.6	9.6	10.3	11.4	12.8	14.1	15.0	15.4	15.5	15.4
Total pension expenditure, gross	10.4	10.4	10.5	11.1	12.2	13.6	14.8	15.7	16.1	16.2	16.1
All pensions, assets	4.4	4.7	7.4	13.5	16.2	12.9	0.5	0.0	0.0	0.0	0.0
Higher labour productivity; as % of GDP											
Social security pensions, gross	10.4	10.4	10.4	11.1	12.1	13.3	14.5	15.2	15.4	15.4	15.2
Old-age and early pensions, gross	9.6	9.6	9.6	10.3	11.3	12.6	13.8	14.5	14.8	14.7	14.5
Total pension expenditure, gross	10.4	10.4	10.4	11.1	12.1	13.3	14.5	15.2	15.4	15.4	15.2
All pensions, assets	4.4	4.7	7.3	13.4	16.2	13.5	2.4	0.0	0.0	0.0	0.0
Lower labour productivity; as % of GDP											
Social security pensions, gross	10.4	10.4	10.4	11.1	12.2	13.5	14.8	15.7	16.0	16.0	15.9
Old-age and early pensions, gross	9.6	9.6	9.6	10.3	11.4	12.8	14.1	15.0	15.3	15.4	15.2
Total pension expenditure, gross	10.4	10.4	10.4	11.1	12.2	13.5	14.8	15.7	16.0	16.0	15.9
All pensions, assets	4.4	4.7	7.4	13.6	16.5	13.6	1.4	0.0	0.0	0.0	0.0
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	10.4	10.4	10.4	11.0	12.0	13.3	14.5	15.3	15.6	15.5	15.4
Old-age and early pensions, gross	9.6	9.6	9.6	10.2	11.2	12.6	13.8	14.6	14.9	14.9	14.7
Total pension expenditure, gross	10.4	10.4	10.4	11.0	12.0	13.3	14.5	15.3	15.6	15.5	15.4
All pensions, assets	4.4	4.7	7.3	13.5	16.5	13.9	2.5	0.0	0.0	0.0	0.0
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	10.4	10.4	10.4	11.0	11.9	13.2	14.4	15.2	15.5	15.5	15.3
Old-age and early pensions, gross	9.6	9.6	9.6	10.2	11.2	12.5	13.7	14.6	14.8	14.8	14.6
Total pension expenditure, gross	10.4	10.4	10.4	11.0	11.9	13.2	14.4	15.2	15.5	15.5	15.3
All pensions, assets	4.4	4.7	7.3	13.5	16.5	14.1	3.1	0.0	0.0	0.0	0.0
Lower interest rate; as % of GDP											
Social security pensions, gross	10.4	10.4	10.4	11.0	12.1	13.4	14.7	15.5	15.7	15.7	15.5
Old-age and early pensions, gross	9.6	9.6	9.6	10.3	11.3	12.7	14.0	14.8	15.1	15.0	14.9
Total pension expenditure, gross	10.4	10.4	10.4	11.0	12.1	13.4	14.7	15.5	15.7	15.7	15.5
All pensions, assets	4.4	4.7	7.1	12.8	14.9	11.3	0.0	0.0	0.0	0.0	0.0
Higher interest rate; as % of GDP											
Social security pensions, gross	10.4	10.4	10.4	11.0	12.1	13.4	14.7	15.5	15.7	15.7	15.5
Old-age and early pensions, gross	9.6	9.6	9.6	10.3	11.3	12.7	14.0	14.8	15.1	15.0	14.9
Total pension expenditure, gross	10.4	10.4	10.4	11.0	12.1	13.4	14.7	15.5	15.7	15.7	15.5
All pensions, assets	4.4	4.7	7.5	14.2	17.9	16.2	5.4	0.0	0.0	0.0	0.0

: = data not provided

Belgium

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.2	6.2	6.4	6.6	6.8	7.0	7.3	7.5	7.6	7.7	7.7
Constant health scenario	6.2	6.2	6.2	6.3	6.4	6.5	6.6	6.8	6.9	6.9	6.9
Death-related costs scenario	6.2	6.2	6.4	6.5	6.6	6.8	6.9	7.1	7.2	7.3	7.3
Income elasticity of demand	6.2	6.3	6.5	6.8	7.0	7.2	7.5	7.7	7.9	8.0	8.0
Unit costs - GDP per worker	6.2	6.2	6.2	6.3	6.6	7.0	7.4	7.8	8.0	8.1	8.1
AWG reference scenario	6.2	6.2	6.4	6.6	6.8	6.9	7.1	7.3	7.5	7.6	7.6
Long-term care spending as % of GDP											
Pure ageing scenario	0.9	0.9	1.0	1.1	1.1	1.2	1.4	1.6	1.8	2.0	2.1
Unit costs - GDP per capita	0.9	0.9	1.0	1.1	1.2	0.8	1.3	1.5	1.7	1.9	2.0
Constant disability scenario	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.3	1.4	1.5	1.5
Increase in formal care	0.9	0.9	1.0	1.2	1.3	1.3	1.5	1.8	2.0	2.2	2.3
AWG reference scenario	0.9	0.9	0.9	1.0	1.1	1.1	1.3	1.4	1.6	1.8	1.8
Number of dependent people (in thousands)											
Pure ageing scenario	416	424	460	502	540	587	664	737	797	834	841
Unit costs - GDP per capita	416	424	460	502	540	306	664	737	797	834	841
Constant disability scenario	416	418	425	367	438	447	482	515	541	555	547
Increase in formal care	416	424	460	502	540	587	664	737	797	834	841
AWG reference scenario	416	421	443	468	489	517	573	626	669	694	694
of which receiving formal care											
Pure ageing scenario	262	268	299	328	350	376	430	484	534	569	579
Unit costs - GDP per capita	262	268	299	328	350	376	430	484	534	569	579
Constant disability scenario	262	265	279	290	293	296	325	353	379	396	395
Increase in formal care	262	276	342	403	457	494	561	626	681	717	726
AWG reference scenario	262	267	289	309	322	336	377	419	457	482	487
of which receiving informal or no care											
Pure ageing scenario	154	156	161	174	190	212	234	253	264	265	263
Unit costs - GDP per capita	154	156	161	174	190	89	234	253	264	265	263
Constant disability scenario	154	153	146	116	146	150	157	161	162	158	152
Increase in formal care	154	148	119	99	83	93	103	111	116	117	116
AWG reference scenario	154	154	154	159	168	181	196	207	213	212	207
Education spending as % of GDP											
Total	5.6	5.6	5.2	5.0	4.9	4.9	5.0	5.0	5.0	5.0	5.0
of which: Transfers	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Primary	1.4	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	0.9	0.9	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.7	0.7
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	2.0	2.0	1.9	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.8
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tertiary education	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.2
of which: Transfers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Number of students (in thousands)											
Total	2373	2360	2312	2253	2218	2203	2200	2184	2152	2114	2087
Primary	753	744	732	708	704	710	713	702	686	672	667
Low secondary	424	423	398	393	383	382	383	381	373	366	361
Upper secondary	819	821	810	787	774	762	762	760	751	736	724
Tertiary education	376	371	372	365	357	348	342	342	343	340	334
Memo											
Population aged 15-64 (in thousands)	6819	6841	6980	6947	6880	6742	6575	6455	6382	6344	6286
Unemployment benefit spending as % of GDP	2.3	2.2	2.0	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8

Czech Republic

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.2	1.2	1.2	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
Life expectancy at birth											
males	72.4	72.6	73.7	74.8	75.9	76.9	77.8	78.3	78.8	79.3	79.7
females	78.8	79.0	79.8	80.5	81.3	82.1	82.7	83.1	83.5	83.8	84.1
Life expectancy at 65											
males	13.8	13.9	14.5	15.1	15.8	16.5	17.0	17.4	17.7	18.1	18.4
females	17.0	17.1	17.7	18.2	18.8	19.3	19.8	20.1	20.4	20.6	20.9
Net migration (thousand)	4.3	4.3	2.6	-1.0	9.7	20.2	21.6	21.4	21.0	20.5	20.0
Net migration as % of population	0.04	0.04	0.03	-0.01	0.10	0.21	0.22	0.22	0.22	0.22	0.22
Population (million)	10.2	10.2	10.1	10.0	9.9	9.8	9.7	9.5	9.3	9.1	8.9
Population aged 0-14 as % of total	15.2	14.9	13.6	13.7	13.8	13.5	12.9	12.3	12.1	12.3	12.6
Prime age population (25-54) as % of total	44.4	44.5	43.8	43.6	43.4	41.8	39.2	36.2	35.0	34.2	33.5
Working age population (15-64) as % of total	70.8	71.1	70.9	68.0	65.4	64.1	63.5	63.1	61.1	58.0	56.5
Elderly population aged 65+ as % of total	13.9	14.0	15.5	18.2	20.8	22.4	23.6	24.6	26.8	29.7	31.0
Very elderly population aged 80 and over as % of total	2.9	3.0	3.5	3.8	4.0	4.9	6.5	7.8	8.1	8.3	8.7
lerly population aged 55+ as % of working age pop.15-64	6.0	6.0	6.2	6.7	7.2	7.5	7.8	8.1	8.4	8.9	9.1
Macroeconomic assumptions											
Real GDP (growth rate)	3.1	3.2	3.6	2.9	2.5	2.3	1.9	0.9	0.4	0.7	0.8
Labour input (growth rate)	0.0	-0.1	0.3	-0.4	-0.6	-0.5	-0.8	-1.1	-1.4	-1.1	-1.0
Labour productivity (growth rate)	3.1	3.3	3.4	3.3	3.0	2.8	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	0.9	1.0	1.4	1.7	1.7	1.7	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	2.2	2.3	2.0	1.6	1.3	1.1	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	3.0	3.3	3.8	3.2	2.7	2.5	2.2	1.3	0.9	1.1	1.3
GDP in 2004 prices (in billions of euro)	86	89	106	125	142	159	177	189	195	200	208
GDP per worker	13.0	13.4	16.2	19.2	22.1	25.0	28.1	30.6	32.2	33.9	36.0
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.2	-0.6	-1.1	-0.9	-0.3	-0.6	-0.6	-1.5	-1.4	-0.9
Labour force (thousands)	5094	5108	5170	5123	4981	4850	4691	4483	4194	3935	3744
Participation rate (15-64)	70.4	70.5	72.0	75.2	76.9	77.2	76.2	74.6	73.6	74.4	74.5
young (15-24)	37.0	36.2	37.1	39.8	35.7	35.9	36.0	36.5	37.4	37.6	36.8
prime-age (25-54)	88.2	88.5	89.4	90.5	90.9	91.4	91.3	91.0	90.7	90.5	90.7
older (55-64)	44.4	44.4	49.7	54.1	59.1	61.3	62.5	62.3	58.7	60.1	60.1
oldest (65-71)	7.9	7.7	8.8	10.7	10.0	10.6	11.5	11.0	12.0	11.1	10.6
Employment rate (15-64)	64.9	65.0	66.8	70.3	71.9	72.1	71.2	69.8	68.8	69.6	69.7
Employment rate (15-71)	60.7	60.8	61.6	63.4	64.2	64.8	64.5	62.6	60.7	59.5	60.4
Employment growth (15-64)		0.3	0.3	-0.4	-0.6	-0.5	-0.8	-1.1	-1.4	-1.1	-1.0
Unemployment rate (15-64)	7.8	7.8	7.3	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Dependency ratios:											
Share of older workers	11.3	11.7	14.2	14.6	15.0	15.8	18.6	22.3	21.2	20.1	20.0
Old-age dependency ratio (1)	19.7	19.8	21.9	26.8	31.8	35.0	37.1	39.0	43.8	51.2	54.8
Total dependency ratio (2)	41.2	40.7	41.0	47.0	52.8	56.1	57.4	58.5	63.5	72.3	77.1
Total economic dependency ratio	117.4	116.6	111.2	109.0	112.6	116.4	121.0	127.2	137.7	147.6	154.0
Economic old-age dependency ratio (15-64)	29.4	29.5	31.5	36.1	42.3	46.5	50.0	53.7	60.8	70.2	75.8
Economic old-age dependency ratio (15-71)	29.1	29.3	31.2	35.5	41.4	45.7	49.0	52.6	59.1	68.0	73.8

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Czech Republic

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0
Old-age and early pensions, gross	7.6	7.6	7.4	7.4	7.6	8.1	8.7	9.9	11.4	12.5	13.3
Of which: earnings-related pensions, gross	7.6	7.6	7.4	7.4	7.6	8.1	8.7	9.9	11.4	12.5	13.3
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0
Social security pensions, net	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0
Total pension expenditure, net	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0
Social security pensions, contributions	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
Total pension contributions	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
Social security pensions, assets	0.3	0.7	3.5	6.8	9.9	11.0	9.4	3.6	0.0	0.0	0.0
All pensions, assets	0.3	0.7	3.5	6.8	9.9	11.0	9.4	3.6	0.0	0.0	0.0
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	100	100	100	100	100	100	100	100	100	100	100
Total pension expenditure, net / Total pension exp., gross, %	100	100	100	100	100	100	100	100	100	100	100
Social security pensions, number of pensioners , 1000 pers.	2629	2667	2795	2893	2984	3099	3215	3351	3483	3513	3496
All pensions, pensioners , 1000 pers.	2629	2667	2795	2893	2984	3099	3215	3351	3483	3513	3496
Number of pensioners aged 65+ , 1000 pers.	1405	1423	1556	1804	2011	2113	2199	2249	2422	2590	2627
Share of pensioners below age 65 as % of all pensioners	46.6	46.6	44.3	37.7	32.6	31.8	31.6	32.9	30.5	26.3	24.9
Average gross social sec. pension, 1000€ in 2004 prices	2.8	2.8	3.1	3.5	4.0	4.6	5.3	6.0	6.8	7.6	8.4
Average gross total pensions, 1000€ in 2004 prices	2.8	2.8	3.1	3.5	4.0	4.6	5.3	6.0	6.8	7.6	8.4
Output / Worker, 1000€ in 2004 prices	17.6	18.2	22.2	26.1	30.5	35.2	40.3	45.1	49.7	54.5	59.4
Social sec. benefit ratio	15.7	15.5	14.1	13.5	13.2	13.0	13.1	13.3	13.7	14.0	14.1
Total pension benefit ratio	15.7	15.5	14.1	13.5	13.2	13.0	13.1	13.3	13.7	14.0	14.1
Social security pensions, num of contributors, in 1000	4767	4778	4880	4911	4776	4650	4500	4306	4056	3822	3620
Average social sec. pension contribution, 1000€ in 2004 prices	1.6	1.7	1.9	2.3	2.6	3.0	3.5	3.9	4.3	4.7	5.1
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	181	179	175	170	160	150	140	128	116	109	104
High life expectancy; as % of GDP											
Social security pensions, gross	8.5	8.5	8.2	8.2	8.5	8.9	9.6	10.8	12.4	13.6	14.4
Old-age and early pensions, gross	7.6	7.6	7.5	7.4	7.7	8.1	8.8	10.0	11.6	12.8	13.6
Total pension expenditure, gross	8.5	8.5	8.2	8.2	8.5	8.9	9.6	10.8	12.4	13.6	14.4
All pensions, assets	0.3	0.7	3.4	6.5	9.1	9.7	7.2	0.2	0.0	0.0	0.0
Higher labour productivity; as % of GDP											
Social security pensions, gross	8.5	8.5	8.2	8.1	8.3	8.7	9.3	10.4	11.9	13.0	13.6
Old-age and early pensions, gross	7.6	7.6	7.4	7.3	7.5	7.9	8.5	9.6	11.1	12.2	12.9
Total pension expenditure, gross	8.5	8.5	8.2	8.1	8.3	8.7	9.3	10.4	11.9	13.0	13.6
All pensions, assets	0.3	0.7	3.4	6.7	9.8	11.2	10.1	5.0	0.0	0.0	0.0
Lower labour productivity; as % of GDP											
Social security pensions, gross	8.5	8.5	8.2	8.2	8.5	9.0	9.6	10.7	12.3	13.4	14.2
Old-age and early pensions, gross	7.6	7.6	7.4	7.4	7.7	8.1	8.8	9.9	11.5	12.6	13.4
Total pension expenditure, gross	8.5	8.5	8.2	8.2	8.5	9.0	9.6	10.7	12.3	13.4	14.2
All pensions, assets	0.3	0.7	3.4	6.6	9.2	9.9	7.5	0.8	0.0	0.0	0.0
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	8.5	8.5	8.2	8.1	8.3	8.8	9.4	10.4	12.0	13.1	13.8
Old-age and early pensions, gross	7.6	7.6	7.4	7.3	7.5	7.9	8.6	9.7	11.2	12.3	13.0
Total pension expenditure, gross	8.5	8.5	8.2	8.1	8.3	8.8	9.4	10.4	12.0	13.1	13.8
All pensions, assets	0.3	0.7	3.5	7.0	10.3	11.7	10.5	5.3	0.0	0.0	0.0
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	8.5	8.5	8.2	8.1	8.3	8.8	9.4	10.4	11.9	13.0	13.7
Old-age and early pensions, gross	7.6	7.6	7.4	7.3	7.5	7.9	8.5	9.6	11.1	12.2	12.9
Total pension expenditure, gross	8.5	8.5	8.2	8.1	8.3	8.8	9.4	10.4	11.9	13.0	13.7
All pensions, assets	0.3	0.7	3.5	6.9	10.0	11.4	10.2	5.2	0.0	0.0	0.0
Lower interest rate; as % of GDP											
Social security pensions, gross	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0
Old-age and early pensions, gross	7.6	7.6	7.4	7.4	7.6	8.1	8.7	9.9	11.4	12.5	13.3
Total pension expenditure, gross	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0
All pensions, assets	0.3	0.7	3.4	6.5	9.2	9.8	7.7	1.4	0.0	0.0	0.0
Higher interest rate; as % of GDP											
Social security pensions, gross	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0
Old-age and early pensions, gross	7.6	7.6	7.4	7.4	7.6	8.1	8.7	9.9	11.4	12.5	13.3
Total pension expenditure, gross	8.5	8.5	8.2	8.2	8.4	8.9	9.6	10.6	12.2	13.3	14.0
All pensions, assets	0.3	0.7	3.6	7.2	10.6	12.4	11.4	6.2	0.0	0.0	0.0

: = data not provided

Czech Republic

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.4	6.5	6.7	7.0	7.3	7.5	7.7	7.9	8.1	8.2	8.3
Constant health scenario	6.4	6.5	6.6	6.7	6.8	7.0	7.1	7.2	7.3	7.4	7.5
Death-related costs scenario	6.4	6.5	6.6	6.8	7.0	7.2	7.4	7.5	7.6	7.7	7.8
Income elasticity of demand	6.4	6.5	6.8	7.2	7.6	7.9	8.2	8.4	8.6	8.7	8.9
Unit costs - GDP per worker	6.4	6.5	6.6	6.8	7.2	7.6	7.9	8.4	8.9	9.5	9.8
AWG reference scenario	6.4	6.5	6.8	7.1	7.4	7.6	7.8	8.0	8.1	8.3	8.4
Long-term care spending as % of GDP											
Pure ageing scenario	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8
Unit costs - GDP per capita	0.3	0.3	0.4	0.4	0.4	0.3	0.5	0.6	0.6	0.6	0.7
Constant disability scenario	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.6
Increase in formal care	0.3	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.0	1.1	1.2
AWG reference scenario	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.7
Number of dependent people (in thousands)											
Pure ageing scenario	299	304	333	371	415	468	520	551	572	600	625
Unit costs - GDP per capita	299	304	333	371	415	220	520	551	572	600	625
Constant disability scenario	299	299	304	256	323	344	369	378	375	375	377
Increase in formal care	299	304	333	371	415	468	520	551	572	600	625
AWG reference scenario	299	302	318	342	369	406	444	465	474	487	501
of which receiving formal care											
Pure ageing scenario	134	136	150	168	186	209	234	250	260	272	281
Unit costs - GDP per capita	134	136	150	168	186	209	234	250	260	272	281
Constant disability scenario	134	134	138	143	146	154	167	173	172	172	171
Increase in formal care	134	144	199	256	314	354	394	419	435	456	473
AWG reference scenario	134	135	144	156	166	182	200	211	216	222	226
of which receiving informal or no care											
Pure ageing scenario	166	168	182	203	229	259	286	301	312	328	344
Unit costs - GDP per capita	166	168	182	203	229	120	286	301	312	328	344
Constant disability scenario	166	165	166	139	178	189	202	205	203	203	205
Increase in formal care	166	160	134	115	101	114	126	133	137	144	151
AWG reference scenario	166	167	174	187	203	224	244	253	257	265	275
Education spending as % of GDP											
Total	3.8	3.8	3.3	2.9	2.8	2.9	3.0	3.0	3.0	3.1	3.1
of which: Transfers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Primary	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.6	0.6
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.1	1.0	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.3	1.2	1.1	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tertiary education	0.9	0.9	0.8	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.7
of which: Transfers	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of students (in thousands)											
Total	1875	1823	1595	1439	1398	1395	1375	1314	1237	1184	1164
Primary	533	501	463	468	468	465	440	402	381	380	385
Low secondary	505	498	373	359	362	367	365	344	314	299	300
Upper secondary	551	541	500	380	379	380	384	380	356	329	317
Tertiary education	286	283	260	231	188	183	185	188	186	176	163
Memo											
Population aged 15-64 (in thousands)	7234	7247	7177	6812	6479	6287	6157	6008	5699	5286	5023
Unemployment benefit spending as % of GDP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Denmark

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Life expectancy at birth											
males	75.2	75.4	76.4	77.3	78.1	78.9	79.5	80.1	80.6	81.0	81.4
females	79.6	79.7	80.5	81.3	82.1	82.7	83.3	83.8	84.3	84.8	85.2
Life expectancy at 65											
males	15.2	15.3	15.9	16.5	17.0	17.5	17.9	18.3	18.6	19.0	19.3
females	18.0	18.1	18.6	19.0	19.5	20.0	20.4	20.8	21.2	21.5	21.9
Net migration (thousand)	7.8	7.6	7.1	7.2	6.9	6.7	6.6	6.6	6.6	6.6	6.6
Net migration as % of population	0.15	0.14	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Population (million)	5.4	5.4	5.5	5.5	5.5	5.6	5.6	5.6	5.6	5.5	5.5
Population aged 0-14 as % of total	18.9	18.8	18.0	16.9	16.0	15.9	16.2	16.5	16.3	15.9	15.5
Prime age population (25-54) as % of total	42.4	42.1	40.3	39.1	38.2	37.1	36.3	35.9	36.2	36.3	36.0
Working age population (15-64) as % of total	66.2	66.2	65.7	64.5	63.9	62.7	60.8	59.1	58.4	58.6	59.6
Elderly population aged 65+ as % of total	14.9	15.0	16.3	18.6	20.1	21.4	22.9	24.4	25.3	25.5	25.0
Very elderly population aged 80 and over as % of total	4.0	4.1	4.1	4.2	4.6	5.6	6.9	7.5	8.0	8.7	9.5
lerly population aged 55+ as % of working age pop.15-64	3.8	3.8	4.0	4.1	4.3	4.5	4.9	5.1	5.0	4.9	4.8
Macroeconomic assumptions											
Real GDP (growth rate)	1.8	2.0	2.1	2.0	1.7	1.4	1.1	1.3	1.5	1.9	1.8
Labour input (growth rate)	0.1	0.3	0.0	0.0	-0.1	-0.4	-0.6	-0.4	-0.2	0.2	0.1
Labour productivity (growth rate)	1.7	1.7	2.1	2.0	1.8	1.8	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	1.1	1.4	1.3	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	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.6	1.7	1.9	1.9	1.6	1.3	1.1	1.3	1.7	2.0	1.9
GDP in 2004 prices (in billions of euro)	195	199	220	243	266	286	304	323	346	378	414
GDP per worker	22.3	22.7	24.9	27.3	29.7	31.8	33.5	35.6	38.3	42.2	46.6
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.2	-0.1	-0.1	-0.1	-0.3	-0.7	-0.3	-0.3	0.0	0.2
Labour force (thousands)	2845	2855	2864	2862	2855	2820	2742	2674	2636	2643	2661
Participation rate (15-64)	79.6	79.7	79.8	80.6	80.7	80.7	80.5	80.8	80.9	81.4	81.3
young (15-24)	65.6	66.0	66.8	68.0	68.2	68.5	68.4	67.8	67.5	67.7	68.1
prime-age (25-54)	87.9	88.1	88.9	89.3	89.3	89.4	89.6	89.7	89.8	89.8	89.7
older (55-64)	64.1	64.4	63.7	66.6	67.9	67.7	66.1	66.2	65.3	67.8	69.0
oldest (65-71)	11.3	10.9	12.2	11.7	11.9	12.0	12.2	11.7	11.9	11.6	11.7
Employment rate (15-64)	75.4	75.8	76.4	77.2	77.3	77.3	77.1	77.3	77.5	78.0	77.9
Employment rate (15-71)	70.2	70.4	70.1	69.5	70.0	69.8	69.1	68.6	69.1	69.9	70.8
Employment growth (15-64)		0.7	0.0	0.0	-0.1	-0.4	-0.6	-0.4	-0.2	0.2	0.1
Unemployment rate (15-64)	5.3	4.9	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Dependency ratios:											
Share of older workers	15.6	16.0	16.1	16.1	17.3	18.5	18.2	17.3	15.4	15.2	17.0
Old-age dependency ratio (1)	22.5	22.6	24.9	28.8	31.5	34.2	37.7	41.3	43.3	43.6	41.9
Total dependency ratio (2)	51.0	51.1	52.3	55.0	56.5	59.5	64.4	69.3	71.4	70.7	67.9
Total economic dependency ratio	100.3	99.4	99.4	100.8	102.5	106.4	113.3	118.9	121.2	118.9	115.6
Economic old-age dependency ratio (15-64)	28.5	28.6	30.8	35.4	38.8	42.2	46.7	51.1	53.7	53.9	52.0
Economic old-age dependency ratio (15-71)	28.2	28.2	30.3	34.7	38.1	41.4	45.7	49.9	52.5	52.8	51.1

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Denmark

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	9.5	9.6	10.1	10.8	11.3	12.0	12.8	13.3	13.5	13.1	12.8
Old-age and early pensions, gross	7.3	7.5	8.2	8.9	9.4	10.0	10.8	11.3	11.5	11.1	10.7
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	2.2	2.2	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, net	6.9	7.0	7.4	7.9	8.3	8.9	9.5	9.9	10.1	9.9	9.6
Total pension expenditure, net	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:	:	:	:
Total pension contributions	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	73	73	73	74	74	74	74	75	75	75	75
Total pension expenditure, net / Total pension exp., gross, %	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, number of pensioners , 1000 pers.	1255	1286	1395	1511	1598	1675	1749	1788	1787	1748	1702
All pensions, pensioners , 1000 pers.	1255	1286	1395	1511	1598	1675	1749	1788	1787	1748	1702
Number of pensioners aged 65+ , 1000 pers.	860	877	980	1120	1204	1273	1348	1416	1441	1428	1371
Share of pensioners below age 65 as % of all pensioners	31.5	31.8	29.7	25.9	24.6	24.0	22.9	20.8	19.4	18.3	19.4
Average gross social sec. pension, 1000€ in 2004 prices	14.7	14.9	16.0	17.3	18.8	20.5	22.2	24.0	26.1	28.3	31.2
Average gross total pensions, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Output / Worker, 1000€ in 2004 prices	72.6	73.9	80.2	88.7	97.2	106.1	115.7	126.0	137.2	149.3	162.5
Social sec. benefit ratio	20.2	20.1	19.9	19.5	19.4	19.3	19.2	19.1	19.0	19.0	19.2
Total pension benefit ratio	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, num of contributors, in 1000	:	:	:	:	:	:	:	:	:	:	:
Average social sec. pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	:	:	:	:	:	:	:	:	:	:	:
High life expectancy; as % of GDP											
Social security pensions, gross	9.5	9.6	10.1	10.8	11.4	12.1	13.0	13.7	13.9	13.6	13.4
Old-age and early pensions, gross	7.3	7.5	8.3	8.9	9.5	10.1	11.0	11.6	11.9	11.6	11.3
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	9.5	9.6	10.1	10.8	11.3	12.0	12.8	13.3	13.5	13.1	12.8
Old-age and early pensions, gross	7.3	7.5	8.2	8.9	9.4	10.0	10.8	11.3	11.5	11.1	10.7
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	9.5	9.6	10.1	10.8	11.3	12.0	12.8	13.3	13.5	13.1	12.8
Old-age and early pensions, gross	7.3	7.5	8.2	8.9	9.4	10.0	10.8	11.3	11.5	11.1	10.7
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	9.5	9.6	10.1	10.8	11.3	12.0	12.8	13.3	13.5	13.1	12.8
Old-age and early pensions, gross	7.3	7.5	8.2	8.9	9.4	10.0	10.8	11.3	11.5	11.1	10.7
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	9.5	9.6	10.0	10.6	11.1	11.6	12.4	13.0	13.1	12.8	12.5
Old-age and early pensions, gross	7.3	7.5	8.2	8.8	9.3	9.8	10.6	11.2	11.3	11.0	10.6
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	9.5	9.6	10.1	10.8	11.3	12.0	12.8	13.3	13.5	13.1	12.8
Old-age and early pensions, gross	7.3	7.5	8.2	8.9	9.4	10.0	10.8	11.3	11.5	11.1	10.7
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	9.5	9.6	10.1	10.8	11.3	12.0	12.8	13.3	13.5	13.1	12.8
Old-age and early pensions, gross	7.3	7.5	8.2	8.9	9.4	10.0	10.8	11.3	11.5	11.1	10.7
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:

: = data not provided

Denmark

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.9	6.9	7.0	7.2	7.4	7.6	7.7	7.8	7.9	7.9	8.0
Constant health scenario	6.9	6.9	6.8	6.9	7.0	7.1	7.2	7.2	7.2	7.1	7.1
Death-related costs scenario	6.9	6.9	6.9	7.1	7.2	7.4	7.5	7.5	7.5	7.6	7.6
Income elasticity of demand	6.9	6.9	7.1	7.3	7.6	7.8	8.0	8.1	8.1	8.2	8.3
Unit costs - GDP per worker	6.9	6.9	7.0	7.2	7.5	7.9	8.3	8.5	8.7	8.6	8.6
AWG reference scenario	6.9	6.9	7.0	7.2	7.4	7.6	7.7	7.7	7.8	7.8	7.8
Long-term care spending as % of GDP											
Pure ageing scenario	1.1	1.1	1.2	1.2	1.3	1.6	1.9	2.1	2.3	2.4	2.6
Unit costs - GDP per capita	1.1	1.1	1.2	1.2	1.3	1.1	1.8	1.9	2.0	2.2	2.4
Constant disability scenario	1.1	1.1	1.1	1.1	1.2	1.3	1.6	1.7	1.8	1.8	1.9
Increase in formal care	1.1	1.1	1.0	0.9	0.9	1.1	1.3	1.5	1.6	1.7	1.8
AWG reference scenario	1.1	1.1	1.1	1.1	1.2	1.5	1.7	1.9	2.0	2.1	2.2
Number of dependent people (in thousands)											
Pure ageing scenario	139	140	150	165	180	205	232	248	260	270	275
Unit costs - GDP per capita	139	140	150	165	180	105	232	248	260	270	275
Constant disability scenario	139	138	138	116	144	155	168	173	175	178	179
Increase in formal care	139	140	150	165	180	205	232	248	260	270	275
AWG reference scenario	139	139	144	153	162	180	200	211	217	224	227
of which receiving formal care											
Pure ageing scenario	189	190	198	215	242	280	318	343	363	383	397
Unit costs - GDP per capita	189	190	198	215	242	280	318	343	363	383	397
Constant disability scenario	189	188	183	186	197	217	239	247	252	260	265
Increase in formal care	189	187	185	193	207	238	270	290	305	320	329
AWG reference scenario	189	189	190	201	219	249	279	295	308	322	331
of which receiving informal or no care											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
Education spending as % of GDP											
Total	7.8	7.7	7.5	7.6	7.5	7.3	7.3	7.5	7.6	7.6	7.5
of which: Transfers	1.6	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5
Primary	2.0	2.0	1.9	1.8	1.7	1.6	1.7	1.9	1.9	1.8	1.7
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.2	1.2	1.3	1.3	1.2	1.1	1.1	1.2	1.3	1.3	1.2
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.8	1.8	2.0	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.0
of which: Transfers	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Tertiary education	2.8	2.7	2.3	2.5	2.6	2.6	2.6	2.5	2.5	2.5	2.5
of which: Transfers	0.9	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Number of students (in thousands)											
Total	1073	1078	1080	1068	1028	985	972	985	997	990	965
Primary	423	426	410	390	361	348	362	379	379	364	347
Low secondary	233	239	261	250	239	220	212	221	232	231	222
Upper secondary	220	220	241	251	244	233	219	215	222	228	226
Tertiary education	198	192	168	176	184	184	179	170	164	166	169
Memo											
Population aged 15-64 (in thousands)	3575	3582	3590	3550	3536	3494	3406	3310	3257	3245	3272
Unemployment benefit spending as % of GDP	1.5	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Germany

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
Life expectancy at birth											
males	76.1	76.3	77.2	78.1	78.9	79.6	80.2	80.7	81.2	81.6	82.0
females	81.7	81.9	82.7	83.5	84.2	84.8	85.4	85.8	86.2	86.5	86.8
Life expectancy at 65											
males	16.1	16.2	16.8	17.4	18.0	18.4	18.8	19.2	19.5	19.8	20.1
females	19.5	19.6	20.3	20.9	21.4	21.9	22.3	22.6	22.9	23.1	23.4
Net migration (thousand)	270.0	250.0	230.0	230.0	215.0	215.0	205.0	205.0	200.0	200.0	200.0
Net migration as % of population	0.33	0.30	0.28	0.28	0.26	0.26	0.25	0.25	0.25	0.25	0.26
Population (million)	82.5	82.7	83.1	83.4	83.5	83.3	82.7	81.8	80.7	79.4	77.7
Population aged 0-14 as % of total	14.7	14.5	13.6	13.2	13.2	13.2	13.0	12.6	12.3	12.1	12.2
Prime age population (25-54) as % of total	43.6	43.5	42.9	42.0	39.7	37.4	36.8	36.6	36.1	35.5	35.3
Working age population (15-64) as % of total	67.3	67.0	66.1	66.0	64.7	62.9	60.4	58.4	58.1	58.2	57.9
Elderly population aged 65+ as % of total	18.0	18.6	20.3	20.8	22.1	23.9	26.6	29.0	29.6	29.6	29.9
Very elderly population aged 80 and over as % of total	4.2	4.3	5.0	5.6	6.9	7.7	7.7	8.5	9.7	11.5	12.7
lerly population aged 55+ as % of working age pop.15-64	54.9	55.3	57.5	59.9	65.0	70.3	73.4	75.2	75.3	75.0	74.4
Macroeconomic assumptions											
Real GDP (growth rate)	1.1	1.2	2.3	1.9	1.3	1.0	0.8	1.1	1.4	1.3	1.2
Labour input (growth rate)	0.4	0.5	1.2	0.4	-0.4	-0.8	-0.9	-0.6	-0.3	-0.5	-0.6
Labour productivity (growth rate)	0.7	0.7	1.1	1.5	1.7	1.8	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	0.5	0.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.1	0.1	0.0	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.1	1.0	2.2	1.9	1.3	1.1	1.0	1.3	1.7	1.6	1.6
GDP in 2004 prices (in billions of euro)	2177	2203	2419	2684	2887	3050	3184	3342	3566	3806	4037
GDP per worker	20.3	20.5	22.4	24.8	26.6	28.2	29.7	31.5	34.0	36.9	40.0
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		-0.3	-0.1	-0.2	-0.5	-0.8	-1.0	-0.8	-0.2	-0.4	-0.5
Labour force (thousands)	40526	40710	42514	43340	42712	41189	39251	37819	37272	36561	35533
Participation rate (15-64)	73.0	73.5	77.4	78.7	79.1	78.7	78.6	79.2	79.5	79.1	79.0
young (15-24)	50.5	50.5	52.6	52.1	52.4	51.8	51.3	51.5	51.8	52.1	52.1
prime-age (25-54)	86.5	86.9	88.3	88.9	89.4	89.6	89.9	90.1	89.9	89.8	89.8
older (55-64)	45.9	47.2	61.7	67.9	69.5	69.0	67.4	68.7	70.7	70.1	69.2
oldest (65-71)	6.2	6.5	6.2	8.3	8.6	8.8	8.8	8.3	7.9	8.7	8.6
Employment rate (15-64)	66.0	66.6	70.9	73.2	73.5	73.2	73.1	73.7	73.9	73.6	73.5
Employment rate (15-71)	59.9	60.1	63.5	67.0	66.3	65.2	63.7	63.6	65.2	65.9	65.0
Employment growth (15-64)		0.6	1.3	0.3	-0.5	-0.9	-1.0	-0.5	-0.2	-0.5	-0.6
Unemployment rate (15-64)	9.5	9.4	8.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	11.2	11.2	14.2	17.5	20.5	22.3	20.0	17.9	18.9	20.1	20.0
Old-age dependency ratio (1)	26.8	27.7	30.7	31.5	34.2	38.1	44.0	49.7	51.0	50.9	51.7
Total dependency ratio (2)	48.7	49.3	51.3	51.5	54.6	59.0	65.5	71.3	72.1	71.8	72.9
Total economic dependency ratio	125.1	124.1	113.6	106.9	110.2	117.3	126.5	132.5	132.8	133.4	135.3
Economic old-age dependency ratio (15-64)	39.5	40.4	42.3	41.8	45.1	50.3	58.2	65.4	67.4	67.6	68.7
Economic old-age dependency ratio (15-71)	39.0	40.0	41.8	41.3	44.4	49.5	57.0	64.1	66.3	66.6	67.5

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Germany

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Old-age and early pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Of which: earnings-related pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Private sector employees, gross	9.8	9.6	8.9	8.9	9.1	9.7	10.3	10.6	10.8	10.9	11.1
Public sector employees, gross	1.6	1.6	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Social security pensions, net	10.1	9.6	9.0	9.0	9.3	9.8	10.4	10.6	10.7	10.7	10.9
Total pension expenditure, net	10.1	9.6	9.0	9.0	9.3	9.8	10.4	10.6	10.7	10.7	10.9
Social security pensions, contributions	7.7	7.5	7.3	6.9	7.3	7.8	8.3	8.6	8.7	8.8	8.9
Total pension contributions	7.7	7.5	7.3	6.9	7.3	7.8	8.3	8.6	8.7	8.8	8.9
Social security pensions, assets	0.1	0.1	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All pensions, assets	0.1	0.1	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	88	86	86	85	85	85	84	84	84	83	83
Total pension expenditure, net / Total pension exp., gross, %	88	86	86	85	85	85	84	84	84	83	83
Social security pensions, number of pensioners , 1000 pers.	23840	24104	25684	26829	28256	30066	32082	33374	33792	34175	34441
All pensions, pensioners , 1000 pers.	23840	24104	25684	26829	28256	30066	32082	33374	33792	34175	34441
Number of pensioners aged 65+ , 1000 pers.	19592	20181	21921	22986	24436	26175	28457	30283	30730	30929	31138
Share of pensioners below age 65 as % of all pensioners	17.8	16.3	14.7	14.3	13.5	12.9	11.3	9.3	9.1	9.5	9.6
Average gross social sec. pension, 1000€ in 2004 prices	10.4	10.2	9.9	10.5	11.2	11.8	12.2	12.7	13.5	14.4	15.3
Average gross total pensions, 1000€ in 2004 prices	10.4	10.2	9.9	10.5	11.2	11.8	12.2	12.7	13.5	14.4	15.3
Output / Worker, 1000€ in 2004 prices	56.2	56.6	59.2	63.4	69.0	75.3	82.1	89.4	97.4	106.0	115.5
Social sec. benefit ratio	18.5	18.0	16.6	16.6	16.2	15.6	14.8	14.2	13.9	13.6	13.3
Total pension benefit ratio	18.5	18.0	16.6	16.6	16.2	15.6	14.8	14.2	13.9	13.6	13.3
Social security pensions, num of contributors, in 1000	32206	32486	34316	35624	35263	34135	32698	31514	30869	30255	29472
Average social sec. pension contribution, 1000€ in 2004 prices	5.2	5.1	5.1	5.2	6.0	7.0	8.1	9.2	10.1	11.1	12.2
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	135	135	134	133	125	114	102	94	91	89	86
High life expectancy; as % of GDP											
Social security pensions, gross	11.4	11.1	10.5	10.5	11.0	11.7	12.4	12.8	12.9	13.1	13.3
Old-age and early pensions, gross	11.4	11.1	10.5	10.5	11.0	11.7	12.4	12.8	12.9	13.1	13.3
Total pension expenditure, gross	11.4	11.1	10.5	10.5	11.0	11.7	12.4	12.8	12.9	13.1	13.3
All pensions, assets	0.1	0.1	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Higher labour productivity; as % of GDP											
Social security pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Old-age and early pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Total pension expenditure, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
All pensions, assets	0.1	0.1	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lower labour productivity; as % of GDP											
Social security pensions, gross	11.4	11.1	10.4	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Old-age and early pensions, gross	11.4	11.1	10.4	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Total pension expenditure, gross	11.4	11.1	10.4	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
All pensions, assets	0.1	0.1	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	11.4	11.1	10.4	10.4	10.9	11.5	12.2	12.6	12.7	12.9	13.0
Old-age and early pensions, gross	11.4	11.1	10.4	10.4	10.9	11.5	12.2	12.6	12.7	12.9	13.0
Total pension expenditure, gross	11.4	11.1	10.4	10.4	10.9	11.5	12.2	12.6	12.7	12.9	13.0
All pensions, assets	0.1	0.1	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	11.4	11.1	10.4	10.5	10.9	11.5	12.2	12.6	12.7	12.9	13.0
Old-age and early pensions, gross	11.4	11.1	10.4	10.5	10.9	11.5	12.2	12.6	12.7	12.9	13.0
Total pension expenditure, gross	11.4	11.1	10.4	10.5	10.9	11.5	12.2	12.6	12.7	12.9	13.0
All pensions, assets	0.1	0.1	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lower interest rate; as % of GDP											
Social security pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Old-age and early pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Total pension expenditure, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
All pensions, assets	0.1	0.1	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Higher interest rate; as % of GDP											
Social security pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Old-age and early pensions, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
Total pension expenditure, gross	11.4	11.1	10.5	10.5	11.0	11.6	12.3	12.7	12.8	12.9	13.1
All pensions, assets	0.1	0.1	0.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

: = data not provided

Germany

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.0	6.1	6.3	6.5	6.7	6.8	7.0	7.1	7.2	7.3	7.3
Constant health scenario	6.0	6.0	6.1	6.2	6.3	6.4	6.4	6.5	6.6	6.7	6.7
Death-related costs scenario	6.0	6.1	6.2	6.4	6.6	6.7	6.8	6.9	6.9	7.0	7.0
Income elasticity of demand	6.0	6.1	6.3	6.6	6.9	7.0	7.2	7.3	7.5	7.6	7.6
Unit costs - GDP per worker	6.0	6.0	6.0	6.0	6.3	6.6	7.0	7.4	7.6	7.8	7.8
AWG reference scenario	6.0	6.1	6.3	6.5	6.7	6.8	6.9	7.0	7.1	7.2	7.2
Long-term care spending as % of GDP											
Pure ageing scenario	1.0	1.0	1.0	1.1	1.3	1.4	1.5	1.6	1.8	2.1	2.3
Unit costs - GDP per capita	1.0	1.0	1.1	1.2	1.3	1.1	1.5	1.6	1.8	2.0	2.2
Constant disability scenario	1.0	1.0	1.0	1.0	1.1	1.2	1.3	1.3	1.5	1.6	1.8
Increase in formal care	1.0	1.0	1.1	1.3	1.6	1.7	1.8	2.0	2.3	2.6	2.8
AWG reference scenario	1.0	1.0	1.0	1.0	1.2	1.3	1.4	1.5	1.6	1.9	2.0
Number of dependent people (in thousands)											
Pure ageing scenario	2790	2867	3245	3547	3944	4244	4494	4905	5299	5608	5689
Unit costs - GDP per capita	2790	2867	3245	3547	3944	2303	4494	4905	5299	5608	5689
Constant disability scenario	2790	2826	2982	2546	3208	3273	3254	3391	3558	3722	3731
Increase in formal care	2790	2867	3245	3547	3944	4244	4494	4905	5299	5608	5689
AWG reference scenario	2790	2847	3114	3296	3576	3759	3874	4148	4429	4665	4710
of which receiving formal care											
Pure ageing scenario	1510	1551	1768	1955	2244	2429	2518	2748	3023	3304	3421
Unit costs - GDP per capita	1510	1551	1768	1955	2244	2429	2518	2748	3023	3304	3421
Constant disability scenario	1510	1531	1644	1713	1875	1939	1903	1992	2131	2296	2347
Increase in formal care	1510	1616	2159	2641	3195	3445	3624	3955	4297	4594	4691
AWG reference scenario	1510	1541	1706	1834	2059	2184	2211	2370	2577	2800	2884
of which receiving informal or no care											
Pure ageing scenario	1280	1317	1477	1592	1700	1815	1975	2158	2276	2304	2269
Unit costs - GDP per capita	1280	1317	1477	1592	1700	855	1975	2158	2276	2304	2269
Constant disability scenario	1280	1295	1339	1075	1333	1335	1351	1399	1427	1426	1383
Increase in formal care	1280	1251	1086	905	748	799	869	950	1002	1014	998
AWG reference scenario	1280	1306	1408	1463	1517	1575	1663	1778	1851	1865	1826
Education spending as % of GDP											
Total	4.0	4.0	3.6	3.3	3.2	3.2	3.3	3.4	3.4	3.3	3.3
of which: Transfers	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Primary	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.4	1.4	1.2	1.1	1.0	1.1	1.1	1.2	1.1	1.1	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tertiary education	1.2	1.2	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
of which: Transfers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Number of students (in thousands)											
Total	14287	14180	13348	12562	12136	11969	11907	11690	11313	10902	10593
Primary	3285	3295	3130	2970	3022	3050	2992	2856	2726	2644	2614
Low secondary	5557	5426	4929	4686	4448	4501	4541	4455	4262	4070	3947
Upper secondary	3248	3287	3168	2895	2754	2604	2628	2649	2605	2497	2388
Tertiary education	2198	2171	2120	2012	1911	1813	1745	1730	1720	1691	1642
Memo											
Population aged 15-64 (in thousands)	55510	55357	54920	55052	54021	52359	49961	47735	46901	46199	44975
Unemployment benefit spending as % of GDP	1.3	1.3	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Estonia

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Life expectancy at birth											
males	65.5	65.7	66.5	67.6	68.9	70.3	71.6	72.7	73.5	74.2	74.9
females	76.9	77.0	77.8	78.6	79.5	80.4	81.2	81.8	82.3	82.8	83.1
Life expectancy at 65											
males	12.4	12.5	12.8	13.3	13.9	14.7	15.4	16.0	16.5	17.0	17.3
females	16.9	16.9	17.4	17.9	18.4	19.0	19.5	20.0	20.4	20.6	20.9
Net migration (thousand)	0.8	0.8	-2.0	-2.5	-0.4	1.5	1.8	1.8	1.7	1.7	1.7
Net migration as % of population	0.06	0.06	-0.15	-0.19	-0.04	0.12	0.15	0.15	0.15	0.15	0.15
Population (million)	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.1
Population aged 0-14 as % of total	16.0	15.4	14.7	15.8	16.4	16.2	15.1	14.1	13.8	14.2	14.8
Prime age population (25-54) as % of total	41.5	41.5	42.2	42.9	42.1	40.8	39.6	38.8	37.7	36.0	35.6
Working age population (15-64) as % of total	67.9	68.1	68.4	66.7	64.9	63.9	63.6	63.9	63.1	61.7	59.6
Elderly population aged 65+ as % of total	16.2	16.4	16.9	17.5	18.7	20.0	21.2	22.0	23.1	24.1	25.7
Very elderly population aged 80 and over as % of total	3.0	3.1	3.9	4.4	5.0	5.0	5.5	6.3	7.2	7.8	8.0
lerly population aged 55+ as % of working age pop.15-64	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0
Macroeconomic assumptions											
Real GDP (growth rate)	6.3	6.3	5.6	3.7	2.7	2.4	2.3	1.5	1.3	0.9	0.6
Labour input (growth rate)	0.8	0.8	0.5	-0.5	-0.9	-0.7	-0.4	-0.5	-0.6	-0.9	-1.1
Labour productivity (growth rate)	5.5	5.4	5.1	4.1	3.6	3.1	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	2.6	2.6	2.5	2.0	1.9	1.8	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	2.9	2.9	2.6	2.2	1.7	1.3	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	6.8	6.6	6.2	4.2	3.1	2.7	2.6	1.8	1.6	1.2	0.9
GDP in 2004 prices (in billions of euro)	9	9	13	16	18	20	23	25	27	28	29
GDP per worker	9.3	9.9	13.5	17.3	20.5	23.6	26.9	30.0	32.7	34.9	36.7
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.1	-0.6	-1.3	-0.9	-0.6	-0.3	-0.4	-0.6	-0.8	-1.1
Labour force (thousands)	647	650	667	658	630	605	589	577	562	540	511
Participation rate (15-64)	70.6	70.9	74.2	77.2	77.8	77.3	77.0	76.5	76.6	76.4	76.1
young (15-24)	37.1	37.4	42.4	42.8	37.6	37.3	37.7	38.9	40.4	40.5	38.9
prime-age (25-54)	86.6	87.4	89.4	90.3	91.1	91.8	91.9	91.7	91.2	90.9	91.3
older (55-64)	57.2	56.5	58.4	62.6	64.8	64.2	65.9	65.7	66.7	66.4	63.7
oldest (65-71)	15.2	17.0	13.2	14.3	14.9	15.7	15.2	15.7	15.8	16.0	16.3
Employment rate (15-64)	63.8	64.4	68.4	71.8	72.3	71.9	71.6	71.1	71.2	71.1	70.8
Employment rate (15-71)	59.2	59.9	63.4	66.6	66.2	65.6	65.1	65.1	64.8	64.4	63.4
Employment growth (15-64)		1.1	0.5	-0.5	-0.9	-0.7	-0.4	-0.5	-0.6	-0.9	-1.1
Unemployment rate (15-64)	9.6	9.1	7.8	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	13.1	12.9	13.8	15.6	16.6	16.1	16.7	17.6	19.4	21.6	20.0
Old-age dependency ratio (1)	23.8	24.1	24.7	26.3	28.7	31.3	33.4	34.5	36.6	39.1	43.1
Total dependency ratio (2)	47.4	46.8	46.2	49.9	54.0	56.6	57.2	56.5	58.5	62.2	67.9
Total economic dependency ratio	130.9	127.7	113.7	108.9	112.9	117.7	119.6	120.1	122.6	128.2	137.1
Economic old-age dependency ratio (15-64)	34.8	34.7	34.2	34.7	37.3	40.7	43.9	45.8	48.6	51.9	57.3
Economic old-age dependency ratio (15-71)	34.0	33.8	33.5	34.0	36.4	39.6	42.8	44.7	47.2	50.4	55.3

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Estonia

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	6.7	7.1	6.8	6.0	5.4	5.1	4.7	4.5	4.4	4.3	4.2
Old-age and early pensions, gross	5.9	6.3	6.0	5.2	4.8	4.5	4.2	4.0	3.9	3.8	3.8
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	0.8	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.4
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	0.0	0.0	0.0	0.1	0.2	0.3	0.6	0.9	1.3	1.7	2.4
Total pension expenditure, gross	6.7	7.1	6.8	6.0	5.6	5.4	5.3	5.4	5.6	6.0	6.6
Social security pensions, net	6.7	7.1	6.8	6.0	5.4	5.1	4.7	4.5	4.4	4.3	4.2
Total pension expenditure, net	6.7	7.1	6.8	6.0	5.6	5.4	5.3	5.4	5.6	6.0	6.6
Social security pensions, contributions	6.5	6.6	6.6	6.5	6.4	6.3	6.2	6.1	6.1	6.1	6.1
Total pension contributions	7.2	7.3	7.5	7.5	7.6	7.5	7.5	7.4	7.4	7.5	7.5
Social security pensions, assets	1.0	0.4	0.0	0.0	2.6	7.5	13.0	19.1	25.6	32.5	40.2
All pensions, assets	2.8	3.4	9.4	15.9	25.3	37.6	50.5	63.4	76.9	90.5	101.0
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	100	100	100	100	100	100	100	100	100	100	100
Total pension expenditure, net / Total pension exp., gross, %	100	100	100	100	100	100	100	100	100	100	100
Social security pensions, number of pensioners , 1000 pers.	378	379	369	357	352	356	359	362	365	370	377
All pensions, pensioners , 1000 pers.	378	379	369	357	352	356	359	362	365	370	377
Number of pensioners aged 65+ , 1000 pers.	283	283	285	281	282	288	290	295	300	308	321
Share of pensioners below age 65 as % of all pensioners	25.0	25.2	22.7	21.2	19.9	19.2	19.1	18.5	17.8	16.6	14.9
Average gross social sec. pension, 1000€ in 2004 prices	1.6	1.8	2.3	2.6	2.8	2.9	3.0	3.1	3.2	3.2	3.2
Average gross total pensions, 1000€ in 2004 prices	1.6	1.8	2.3	2.6	2.9	3.1	3.4	3.7	4.1	4.6	5.1
Output / Worker, 1000€ in 2004 prices	14.7	15.5	20.4	25.4	30.7	36.2	41.7	46.6	51.3	56.2	61.3
Social sec. benefit ratio	10.5	11.4	11.3	10.2	9.0	8.0	7.2	6.6	6.2	5.8	5.3
Total pension benefit ratio	10.5	11.4	11.4	10.3	9.3	8.5	8.0	8.0	8.0	8.1	8.3
Social security pensions, num of contributors, in 1000	599	607	626	624	600	578	563	551	538	517	492
Average social sec. pension contribution, 1000€ in 2004 prices	1.0	1.0	1.3	1.6	1.9	2.2	2.5	2.8	3.0	3.3	3.6
Average total pension contribution, 1000€ in 2004 prices	1.1	1.1	1.5	1.9	2.3	2.7	3.0	3.4	3.7	4.1	4.5
Support ratio (contributors /100 pensioners, social sec. pens.)	159	160	170	175	171	162	157	152	147	140	130
High life expectancy; as % of GDP											
Social security pensions, gross	6.7	7.1	6.8	6.0	5.4	5.1	4.8	4.6	4.4	4.3	4.3
Old-age and early pensions, gross	5.9	6.3	6.0	5.2	4.8	4.5	4.2	4.0	4.0	3.9	3.9
Total pension expenditure, gross	6.7	7.1	6.8	6.0	5.6	5.4	5.3	5.4	5.7	6.1	6.7
All pensions, assets	2.8	3.4	9.4	15.9	26.0	38.4	51.3	64.1	77.4	90.8	100.8
Higher labour productivity; as % of GDP											
Social security pensions, gross	6.7	7.1	6.8	5.9	5.3	5.0	4.6	4.3	4.2	4.1	4.0
Old-age and early pensions, gross	5.9	6.3	6.0	5.2	4.7	4.4	4.1	3.8	3.7	3.6	3.6
Total pension expenditure, gross	6.7	7.1	6.8	5.9	5.5	5.3	5.1	5.2	5.4	5.7	6.2
All pensions, assets	2.9	3.4	9.3	15.7	25.8	38.3	51.3	64.3	77.9	91.6	102.3
Lower labour productivity; as % of GDP											
Social security pensions, gross	6.7	7.1	6.8	6.0	5.4	5.1	4.8	4.6	4.5	4.4	4.4
Old-age and early pensions, gross	5.9	6.3	6.0	5.2	4.8	4.5	4.2	4.1	4.0	3.9	3.9
Total pension expenditure, gross	6.7	7.1	6.8	6.0	5.6	5.5	5.4	5.5	5.8	6.2	6.9
All pensions, assets	2.8	3.3	9.3	15.9	25.4	37.7	50.6	63.5	76.9	90.5	100.6
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	6.6	7.1	6.8	5.9	5.4	5.1	4.7	4.5	4.4	4.3	4.2
Old-age and early pensions, gross	5.9	6.3	6.0	5.2	4.8	4.5	4.2	4.0	3.9	3.8	3.8
Total pension expenditure, gross	6.6	7.1	6.8	6.0	5.6	5.4	5.3	5.4	5.6	6.0	6.6
All pensions, assets	2.8	3.4	9.3	15.9	26.6	39.4	52.7	66.2	80.2	94.5	105.5
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	7.4	8.0	7.6	6.7	6.0	5.6	5.2	5.0	4.8	4.7	4.6
Old-age and early pensions, gross	6.7	7.1	6.8	5.9	5.4	5.0	4.7	4.5	4.4	4.3	4.2
Total pension expenditure, gross	7.4	8.0	7.6	6.7	6.2	6.0	5.8	5.8	6.1	6.4	6.9
All pensions, assets	2.8	3.4	9.3	15.8	25.8	38.1	51.2	64.4	78.0	91.9	102.6
Lower interest rate; as % of GDP											
Social security pensions, gross	6.7	7.1	6.8	6.0	5.4	5.1	4.7	4.5	4.4	4.3	4.2
Old-age and early pensions, gross	5.9	6.3	6.0	5.2	4.8	4.5	4.2	4.0	3.9	3.8	3.8
Total pension expenditure, gross	6.7	7.1	6.8	6.0	5.6	5.4	5.2	5.2	5.4	5.6	6.0
All pensions, assets	2.8	3.3	9.3	15.2	23.9	35.1	46.8	58.4	70.3	82.5	92.2
Higher interest rate; as % of GDP											
Social security pensions, gross	6.7	7.1	6.8	6.0	5.4	5.1	4.7	4.5	4.4	4.3	4.2
Old-age and early pensions, gross	5.9	6.3	6.0	5.2	4.8	4.5	4.2	4.0	3.9	3.8	3.8
Total pension expenditure, gross	6.7	7.1	6.8	6.0	5.6	5.4	5.4	5.5	5.9	6.4	7.3
All pensions, assets	2.8	3.3	9.4	16.5	26.8	40.3	54.7	69.3	84.6	100.2	111.9

: = data not provided

Estonia

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.3
Constant health scenario	5.4	5.5	5.5	5.6	5.5	5.5	5.5	5.6	5.6	5.6	5.7
Death-related costs scenario	5.4	5.5	5.6	5.6	5.7	5.7	5.7	5.8	5.9	5.9	5.9
Income elasticity of demand	5.4	5.5	5.8	6.0	6.2	6.3	6.5	6.6	6.8	6.9	6.9
Unit costs - GDP per worker	5.4	5.4	5.2	5.2	5.4	5.6	5.7	5.8	6.0	6.2	6.5
AWG reference scenario	5.4	5.5	5.8	6.0	6.1	6.1	6.2	6.3	6.4	6.5	6.5
Long-term care spending as % of GDP											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
Number of dependent people (in thousands)											
Pure ageing scenario	36	36	39	40	42	43	46	49	51	53	55
Unit costs - GDP per capita	36	36	39	40	42	21	46	49	51	53	55
Constant disability scenario	36	36	35	28	33	32	32	33	34	34	34
Increase in formal care	36	36	39	40	42	43	46	49	51	53	55
AWG reference scenario	36	36	37	37	38	38	39	41	43	43	44
of which receiving formal care											
Pure ageing scenario	0	0	0	0	0	0	0	0	0	0	0
Unit costs - GDP per capita	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
Increase in formal care	0	2	10	17	23	24	26	27	29	30	31
AWG reference scenario	0	0	0	0	0	0	0	0	0	0	0
of which receiving informal or no care											
Pure ageing scenario	36	36	39	40	42	43	46	49	51	53	55
Unit costs - GDP per capita	36	36	39	40	42	21	46	49	51	53	55
Constant disability scenario	36	36	35	28	33	32	32	33	34	34	34
Increase in formal care	36	35	29	23	18	19	20	21	23	23	24
AWG reference scenario	36	36	37	37	38	38	39	41	43	43	44
Education spending as % of GDP											
Total	5.0	4.8	3.8	3.4	3.5	3.8	3.8	3.7	3.5	3.5	3.6
of which: Transfers	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Primary	1.3	1.2	1.1	1.2	1.3	1.3	1.3	1.1	1.1	1.1	1.3
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Low secondary	1.2	1.2	0.7	0.7	0.8	0.9	0.9	0.8	0.8	0.7	0.8
of which: Transfers	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.2	1.2	0.9	0.7	0.7	0.8	0.9	0.9	0.8	0.8	0.8
of which: Transfers	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	1.2	1.1	1.1	0.9	0.8	0.8	0.8	0.8	0.9	0.8	0.8
of which: Transfers	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Number of students (in thousands)											
Total	290	280	235	211	209	214	211	199	184	175	175
Primary	93	87	78	83	87	88	82	72	67	68	71
Low secondary	65	61	40	38	40	43	43	40	35	33	33
Upper secondary	68	69	54	41	41	43	45	45	41	36	35
Tertiary education	64	63	62	49	41	40	41	42	42	39	35
Memo											
Population aged 15-64 (in thousands)	916	917	899	853	810	782	765	755	734	706	670
Unemployment benefit spending as % of GDP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Greece

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.3	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Life expectancy at birth											
males	76.4	76.5	77.1	77.6	78.2	78.8	79.3	79.8	80.2	80.6	81.1
females	81.4	81.5	82.1	82.8	83.3	83.9	84.4	84.8	85.2	85.6	85.9
Life expectancy at 65											
males	16.4	16.4	16.8	17.2	17.6	18.0	18.4	18.7	19.0	19.3	19.6
females	18.5	18.6	19.1	19.6	20.1	20.5	20.9	21.3	21.7	22.0	22.3
Net migration (thousand)	42.9	41.9	39.7	40.4	38.7	36.4	34.8	34.8	34.8	34.8	34.9
Net migration as % of population	0.39	0.38	0.35	0.35	0.34	0.32	0.31	0.31	0.31	0.32	0.33
Population (million)	11.0	11.1	11.3	11.4	11.4	11.4	11.3	11.3	11.1	11.0	10.7
Population aged 0-14 as % of total	14.5	14.4	14.2	14.2	14.0	13.3	12.6	12.1	12.0	12.1	12.2
Prime age population (25-54) as % of total	43.7	43.9	44.3	43.0	41.5	39.3	37.0	35.2	33.8	33.6	33.5
Working age population (15-64) as % of total	67.7	67.5	67.1	65.8	64.8	63.8	62.7	60.6	58.4	56.2	54.7
Elderly population aged 65+ as % of total	17.9	18.1	18.8	20.0	21.2	22.8	24.8	27.2	29.6	31.7	33.1
Very elderly population aged 80 and over as % of total	3.3	3.4	4.4	5.5	6.1	6.1	6.8	7.6	8.7	9.7	11.0
lerly population aged 55+ as % of working age pop.15-64	7.1	7.2	7.6	8.1	8.6	9.1	9.6	10.2	10.8	11.2	11.3
Macroeconomic assumptions											
Real GDP (growth rate)	3.7	3.1	2.2	2.3	1.6	1.2	1.0	0.8	0.7	0.8	1.1
Labour input (growth rate)	1.1	0.5	0.9	0.5	-0.3	-0.6	-0.7	-0.9	-1.0	-0.9	-0.6
Labour productivity (growth rate)	2.5	2.6	1.3	1.8	1.9	1.8	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.4	1.3	0.2	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.1	1.3	1.1	1.0	0.9	0.8	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	3.4	2.7	1.9	2.2	1.6	1.3	1.1	1.0	0.9	1.2	1.5
GDP in 2004 prices (in billions of euro)	165	170	195	217	237	254	268	279	289	300	315
GDP per worker	14.5	14.8	16.7	18.4	20.0	21.5	22.8	23.9	25.1	26.5	28.3
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.1	0.0	-0.1	-0.3	-0.4	-0.6	-0.9	-1.1	-1.0	-0.7
Labour force (thousands)	4934	4990	5186	5244	5206	5087	4920	4710	4483	4270	4111
Participation rate (15-64)	66.0	66.7	68.6	69.9	70.2	69.8	69.2	69.0	69.0	69.4	70.0
young (15-24)	35.9	36.3	35.2	35.1	34.2	33.7	34.4	35.1	35.2	34.8	34.4
prime-age (25-54)	80.5	81.0	83.0	84.3	85.0	85.4	85.3	85.1	85.2	85.3	85.4
older (55-64)	44.0	44.2	45.6	48.6	50.8	52.6	53.3	54.3	53.8	52.8	53.7
oldest (65-71)	14.0	13.7	13.5	14.4	14.5	14.8	15.0	15.3	15.3	15.3	15.1
Employment rate (15-64)	59.9	60.5	62.7	65.0	65.3	64.9	64.4	64.2	64.2	64.5	65.1
Employment rate (15-71)	55.1	55.7	58.1	59.9	59.7	58.9	58.0	57.2	56.6	56.6	57.0
Employment growth (15-64)		1.1	0.9	0.5	-0.3	-0.6	-0.7	-0.9	-1.0	-0.9	-0.6
Unemployment rate (15-64)	9.3	9.3	8.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	11.0	10.9	12.0	13.6	15.2	17.3	19.1	20.3	20.3	18.6	17.4
Old-age dependency ratio (1)	26.4	26.8	28.0	30.3	32.7	35.8	39.5	44.9	50.7	56.3	60.4
Total dependency ratio (2)	47.8	48.1	49.1	51.9	54.3	56.6	59.6	64.9	71.3	77.9	82.7
Total economic dependency ratio	146.7	144.9	137.9	133.6	136.2	141.2	148.0	156.9	166.8	175.8	180.8
Economic old-age dependency ratio (15-64)	41.4	41.7	42.5	44.2	47.4	52.0	57.9	66.0	74.6	82.8	88.5
Economic old-age dependency ratio (15-71)	40.3	40.7	41.6	43.1	46.1	50.4	56.0	63.5	71.5	79.2	84.7

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Greece

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.1	5.1	5.3	5.5	5.5	5.7	5.9	6.2	6.5	6.7	6.9
Constant health scenario	5.1	5.1	5.3	5.3	5.3	5.3	5.5	5.7	6.0	6.2	6.3
Death-related costs scenario	5.1	5.1	5.3	5.4	5.4	5.5	5.7	6.0	6.2	6.4	6.5
Income elasticity of demand	5.1	5.2	5.4	5.6	5.7	5.8	6.1	6.4	6.7	7.0	7.2
Unit costs - GDP per worker	5.1	5.1	5.2	5.2	5.3	5.6	6.0	6.5	7.1	7.6	7.9
AWG reference scenario	5.1	5.1	5.4	5.5	5.6	5.7	5.9	6.2	6.5	6.7	6.8
Long-term care spending as % of GDP											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
Number of dependent people (in thousands)											
Pure ageing scenario	254	262	308	346	366	386	419	461	503	543	578
Unit costs - GDP per capita	254	262	308	346	366	196	419	461	503	543	578
Constant disability scenario	254	258	282	248	295	291	300	315	332	348	363
Increase in formal care	254	262	308	346	366	386	419	461	503	543	578
AWG reference scenario	254	260	295	322	330	339	360	388	417	446	471
of which receiving formal care											
Pure ageing scenario	0	0	0	0	0	0	0	0	0	0	0
Unit costs - GDP per capita	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
Increase in formal care	0	13	82	149	205	216	235	258	281	304	324
AWG reference scenario	0	0	0	0	0	0	0	0	0	0	0
of which receiving informal or no care											
Pure ageing scenario	254	262	308	346	366	386	419	461	503	543	578
Unit costs - GDP per capita	254	262	308	346	366	196	419	461	503	543	578
Constant disability scenario	254	258	282	248	295	291	300	315	332	348	363
Increase in formal care	254	249	226	197	161	170	185	203	221	239	254
AWG reference scenario	254	260	295	322	330	339	360	388	417	446	471
Education spending as % of GDP											
Total	3.5	3.4	3.1	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.1
of which: Transfers	:	:	:	:	:	:	:	:	:	:	:
Primary	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	1.0	1.0
of which: Transfers	:	:	:	:	:	:	:	:	:	:	:
Low secondary	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
of which: Transfers	:	:	:	:	:	:	:	:	:	:	:
Upper secondary	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.6
of which: Transfers	:	:	:	:	:	:	:	:	:	:	:
Tertiary education	1.3	1.2	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0
of which: Transfers	:	:	:	:	:	:	:	:	:	:	:
Number of students (in thousands)											
Total	1924	1888	1768	1733	1741	1724	1660	1576	1505	1464	1444
Primary	645	636	622	655	659	625	578	547	536	536	532
Low secondary	337	336	319	313	329	329	310	287	273	268	269
Upper secondary	391	380	357	337	345	358	350	327	305	294	291
Tertiary education	551	536	470	428	408	412	422	414	391	367	352
Memo											
Population aged 15-64 (in thousands)	7472	7481	7557	7500	7414	7286	7110	6823	6494	6156	5877
Unemployment benefit spending as % of GDP	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Spain

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Life expectancy at birth											
males	76.6	76.7	77.6	78.4	79.1	79.7	80.2	80.6	81.0	81.3	81.7
females	83.4	83.6	84.3	85.0	85.6	86.1	86.5	86.7	87.0	87.2	87.3
Life expectancy at 65											
males	16.7	16.8	17.4	17.9	18.4	18.8	19.1	19.4	19.6	19.8	20.0
females	20.7	20.8	21.4	21.9	22.4	22.7	23.0	23.2	23.4	23.6	23.7
Net migration (thousand)	507.5	460.1	112.2	112.5	110.3	107.3	105.3	105.3	104.5	102.8	101.6
Net migration as % of population	1.20	1.07	0.25	0.25	0.24	0.24	0.23	0.23	0.23	0.23	0.24
Population (million)	42.3	42.9	44.6	45.3	45.6	45.6	45.4	45.1	44.7	44.0	43.0
Population aged 0-14 as % of total	14.5	14.6	14.9	15.1	14.4	13.0	11.9	11.3	11.4	11.6	11.6
Prime age population (25-54) as % of total	45.6	45.9	46.5	45.0	42.7	39.9	37.4	35.0	33.8	33.4	33.4
Working age population (15-64) as % of total	68.6	68.6	67.9	66.6	66.0	65.3	63.8	61.3	58.1	54.9	53.4
Elderly population aged 65+ as % of total	16.9	16.8	17.2	18.3	19.6	21.7	24.4	27.4	30.5	33.5	35.0
Very elderly population aged 80 and over as % of total	4.2	4.3	4.9	5.7	6.0	6.3	7.1	7.9	9.2	10.7	12.3
lerly population aged 55+ as % of working age pop.15-64	25.7	26.1	28.3	30.9	32.8	34.6	37.1	40.8	44.3	46.9	47.0
Macroeconomic assumptions											
Real GDP (growth rate)	3.1	3.1	2.8	2.7	2.0	1.5	1.0	0.7	0.4	0.5	1.0
Labour input (growth rate)	2.4	2.3	1.2	0.7	0.1	-0.4	-0.7	-1.0	-1.3	-1.2	-0.7
Labour productivity (growth rate)	0.6	0.8	1.6	2.0	2.0	1.9	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	0.0	0.1	0.7	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	0.7	1.0	0.9	0.9	0.8	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.2	1.7	2.4	2.5	2.0	1.6	1.1	0.8	0.6	0.9	1.6
GDP in 2004 prices (in billions of euro)	838	863	1002	1154	1286	1401	1490	1552	1589	1623	1689
GDP per worker	17.1	17.4	19.4	22.0	24.4	26.6	28.4	29.7	30.7	31.9	34.0
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		1.4	0.0	-0.1	0.0	-0.3	-0.7	-1.0	-1.4	-1.4	-0.8
Labour force (thousands)	19933	20462	22033	22555	22727	22507	21906	20938	19672	18432	17613
Participation rate (15-64)	68.6	69.5	72.7	74.8	75.5	75.6	75.6	75.7	75.7	76.3	76.8
young (15-24)	45.3	45.2	43.7	42.7	40.9	41.7	43.1	44.0	43.8	42.9	42.1
prime-age (25-54)	80.6	81.5	85.1	87.6	89.0	89.9	90.0	89.7	89.6	89.7	89.9
older (55-64)	44.4	45.1	47.9	52.4	57.8	60.9	63.3	64.6	63.5	63.1	63.9
oldest (65-71)	3.9	5.0	9.8	10.9	11.2	12.6	12.8	13.0	13.3	13.1	12.5
Employment rate (15-64)	61.2	62.3	66.4	69.6	70.2	70.3	70.3	70.4	70.4	71.0	71.4
Employment rate (15-71)	56.2	57.5	61.7	64.1	64.4	63.8	62.9	62.1	61.3	60.9	61.8
Employment growth (15-64)		3.2	1.2	0.7	0.1	-0.4	-0.7	-1.0	-1.3	-1.2	-0.7
Unemployment rate (15-64)	10.8	10.4	8.7	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	9.7	9.9	10.7	12.6	15.7	18.3	20.9	23.1	22.6	20.0	18.3
Old-age dependency ratio (1)	24.6	24.5	25.3	27.5	29.8	33.2	38.2	44.6	52.5	61.1	65.6
Total dependency ratio (2)	45.8	45.7	47.2	50.2	51.5	53.1	56.8	63.1	72.2	82.3	87.4
Total economic dependency ratio	138.2	134.0	121.8	115.9	115.8	117.9	123.0	131.8	144.4	156.8	162.4
Economic old-age dependency ratio (15-64)	39.6	38.6	36.9	38.0	40.7	44.9	51.6	60.4	71.0	82.2	88.4
Economic old-age dependency ratio (15-71)	39.4	38.3	36.4	37.4	40.0	44.0	50.3	58.6	68.6	79.1	85.5

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Spain

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	8.6	8.7	8.9	8.8	9.3	10.4	11.8	13.4	15.2	16.2	15.7
Old-age and early pensions, gross	5.6	5.7	5.8	5.7	6.1	7.1	8.4	9.8	11.5	12.6	12.3
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	5.1	5.2	5.2	5.1	5.5	6.4	7.7	9.1	10.9	12.0	11.8
Public sector employees, gross	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.5
Other pensions (disability, survivors), gross	3.0	3.0	3.1	3.1	3.2	3.3	3.4	3.6	3.6	3.6	3.5
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	8.6	8.7	8.9	8.8	9.3	10.4	11.8	13.4	15.2	16.2	15.7
Social security pensions, net	8.2	8.2	8.4	8.4	8.8	9.8	11.3	12.7	14.4	15.4	14.9
Total pension expenditure, net	8.2	8.2	8.4	8.4	8.8	9.8	11.3	12.7	14.4	15.4	14.9
Social security pensions, contributions	:	:	:	:	:	:	:	:	:	:	:
Total pension contributions	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	95	95	95	95	95	95	95	95	95	95	95
Total pension expenditure, net / Total pension exp., gross, %	95	95	95	95	95	95	95	95	95	95	95
Social security pensions, number of pensioners , 1000 pers.	8519	8624	9088	9676	10392	11389	12623	13801	14715	15273	15059
All pensions, pensioners , 1000 pers.	8519	8624	9088	9676	10392	11389	12623	13801	14715	15273	15059
Number of pensioners aged 65+ , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:	:	:	:
Average gross social sec. pension, 1000€ in 2004 prices	8.4	8.7	9.8	10.5	11.5	12.7	14.0	15.1	16.4	17.2	17.6
Average gross total pensions, 1000€ in 2004 prices	8.4	8.7	9.8	10.5	11.5	12.7	14.0	15.1	16.4	17.2	17.6
Output / Worker, 1000€ in 2004 prices	49.2	49.6	49.8	55.0	60.9	66.9	73.2	79.7	86.9	94.7	103.1
Social sec. benefit ratio	17.2	17.5	19.6	19.1	18.9	19.0	19.1	18.9	18.8	18.2	17.1
Total pension benefit ratio	17.2	17.5	19.6	19.1	18.9	19.0	19.1	18.9	18.8	18.2	17.1
Social security pensions, num of contributors, in 1000	:	:	:	:	:	:	:	:	:	:	:
Average social sec. pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	:	:	:	:	:	:	:	:	:	:	:
High life expectancy; as % of GDP											
Social security pensions, gross	8.6	8.7	8.9	8.8	9.3	10.4	11.9	13.4	15.2	16.3	15.8
Old-age and early pensions, gross	5.6	5.7	5.8	5.7	6.1	7.1	8.4	9.9	11.6	12.7	12.3
Total pension expenditure, gross	8.6	8.7	8.9	8.8	9.3	10.4	11.9	13.4	15.2	16.3	15.8
All pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Higher labour productivity; as % of GDP											
Social security pensions, gross	8.6	8.7	8.9	8.7	9.1	10.1	11.5	12.9	14.5	15.4	14.8
Old-age and early pensions, gross	5.6	5.7	5.7	5.7	6.0	6.9	8.1	9.4	11.0	11.9	11.5
Total pension expenditure, gross	8.6	8.7	8.9	8.7	9.1	10.1	11.5	12.9	14.5	15.4	14.8
All pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lower labour productivity; as % of GDP											
Social security pensions, gross	8.6	8.7	8.9	8.9	9.5	10.6	12.3	14.0	15.9	17.1	16.7
Old-age and early pensions, gross	5.6	5.7	5.8	5.8	6.3	7.3	8.7	10.3	12.1	13.3	13.0
Total pension expenditure, gross	8.6	8.7	8.9	8.9	9.5	10.6	12.3	14.0	15.9	17.1	16.7
All pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	8.6	8.7	8.9	8.8	9.3	10.3	11.8	13.4	15.1	16.1	15.6
Old-age and early pensions, gross	5.6	5.7	5.8	5.7	6.1	7.1	8.4	9.8	11.5	12.5	12.2
Total pension expenditure, gross	8.6	8.7	8.9	8.8	9.3	10.3	11.8	13.4	15.1	16.1	15.6
All pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	8.6	8.7	8.8	8.8	9.2	10.3	11.7	13.3	15.0	16.0	15.6
Old-age and early pensions, gross	5.6	5.7	5.7	5.7	6.1	7.0	8.3	9.7	11.4	12.5	12.2
Total pension expenditure, gross	8.6	8.7	8.8	8.8	9.2	10.3	11.7	13.3	15.0	16.0	15.6
All pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lower interest rate; as % of GDP											
Social security pensions, gross	8.6	8.7	8.9	8.8	9.3	10.4	11.8	13.4	15.2	16.2	15.7
Old-age and early pensions, gross	5.6	5.7	5.8	5.7	6.1	7.1	8.4	9.8	11.5	12.6	12.3
Total pension expenditure, gross	8.6	8.7	8.9	8.8	9.3	10.4	11.8	13.4	15.2	16.2	15.7
All pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Higher interest rate; as % of GDP											
Social security pensions, gross	8.6	8.7	8.9	8.8	9.3	10.4	11.8	13.4	15.2	16.2	15.7
Old-age and early pensions, gross	5.6	5.7	5.8	5.7	6.1	7.1	8.4	9.8	11.5	12.6	12.3
Total pension expenditure, gross	8.6	8.7	8.9	8.8	9.3	10.4	11.8	13.4	15.2	16.2	15.7
All pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

: = data not provided

Spain

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.1	6.1	6.3	6.5	6.7	7.0	7.3	7.6	7.9	8.1	8.3
Constant health scenario	6.1	6.1	6.1	6.2	6.3	6.5	6.8	7.0	7.3	7.5	7.7
Death-related costs scenario	6.1	6.1	6.2	6.4	6.6	6.8	7.1	7.4	7.6	7.8	8.0
Income elasticity of demand	6.1	6.1	6.3	6.6	6.9	7.2	7.6	7.9	8.2	8.5	8.7
Unit costs - GDP per worker	6.1	6.1	5.9	6.0	6.2	6.5	7.0	7.6	8.3	9.0	9.4
AWG reference scenario	6.1	6.1	6.3	6.5	6.7	7.0	7.3	7.6	7.9	8.1	8.3
Long-term care spending as % of GDP											
Pure ageing scenario	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.8
Unit costs - GDP per capita	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.7	0.7	0.8
Constant disability scenario	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7
Increase in formal care	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.3	1.5	1.7
AWG reference scenario	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8
Number of dependent people (in thousands)											
Pure ageing scenario	1449	1483	1652	1813	1937	2097	2337	2618	2938	3259	3494
Unit costs - GDP per capita	1449	1483	1652	1813	1937	1108	2337	2618	2938	3259	3494
Constant disability scenario	1449	1463	1524	1331	1575	1603	1695	1811	1959	2114	2224
Increase in formal care	1449	1483	1652	1813	1937	2097	2337	2618	2938	3259	3494
AWG reference scenario	1449	1473	1588	1692	1756	1850	2016	2214	2449	2687	2859
of which receiving formal care											
Pure ageing scenario	444	453	497	532	570	625	693	779	872	958	1014
Unit costs - GDP per capita	444	453	497	532	570	625	693	779	872	958	1014
Constant disability scenario	444	446	454	452	451	460	482	514	551	587	608
Increase in formal care	444	505	803	1084	1335	1449	1614	1809	2029	2246	2403
AWG reference scenario	444	450	476	492	510	542	588	646	711	772	811
of which receiving informal or no care											
Pure ageing scenario	1004	1030	1154	1281	1367	1473	1644	1839	2066	2301	2480
Unit costs - GDP per capita	1004	1030	1154	1281	1367	811	1644	1839	2066	2301	2480
Constant disability scenario	1004	1017	1070	958	1124	1142	1213	1297	1408	1527	1616
Increase in formal care	1004	978	848	729	602	648	723	809	909	1013	1091
AWG reference scenario	1004	1023	1112	1200	1245	1307	1428	1568	1737	1914	2048
Education spending as % of GDP											
Total	3.7	3.6	3.2	3.1	3.2	3.1	3.0	2.9	2.9	3.0	3.1
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Primary	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.9	0.9	1.0	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	0.9	0.9	0.8	0.8	0.9	0.9	0.8	0.7	0.7	0.8	0.8
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	0.7	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.6
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	0.9	0.9	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.6
of which: Transfers	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
Number of students (in thousands)											
Total	7275	7211	7031	7161	7299	7089	6576	6037	5705	5601	5569
Primary	2494	2506	2740	2963	2885	2589	2287	2131	2128	2180	2164
Low secondary	1961	1948	1853	1965	2132	2090	1885	1668	1551	1543	1579
Upper secondary	1054	1034	953	904	986	1037	991	886	794	753	757
Tertiary education	1766	1723	1485	1330	1296	1373	1413	1351	1232	1125	1070
Memo											
Population aged 15-64 (in thousands)	29050	29458	30301	30152	30100	29788	28979	27673	25972	24150	22937
Unemployment benefit spending as % of GDP	1.1	1.1	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

France

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Life expectancy at birth											
males	76.2	76.4	77.4	78.4	79.3	80.0	80.6	81.2	81.6	82.0	82.3
females	83.4	83.6	84.4	85.2	85.8	86.4	86.8	87.2	87.5	87.7	87.9
Life expectancy at 65											
males	17.0	17.1	17.7	18.2	18.8	19.2	19.5	19.9	20.1	20.3	20.5
females	21.3	21.4	22.0	22.6	23.1	23.5	23.8	24.1	24.3	24.4	24.5
Net migration (thousand)	63.9	63.2	61.6	62.1	60.3	59.2	58.9	58.9	58.8	58.8	58.7
Net migration as % of population	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Population (million)	59.9	60.2	61.5	62.6	63.5	64.3	64.9	65.5	65.6	65.5	65.1
Population aged 0-14 as % of total	18.6	18.5	18.2	17.9	17.2	16.7	16.4	16.2	16.1	16.0	15.9
Prime age population (25-54) as % of total	41.6	41.3	40.0	38.8	37.4	36.3	35.6	35.4	35.1	34.8	34.9
Working age population (15-64) as % of total	65.1	65.1	65.0	63.5	62.3	61.0	59.6	58.4	57.5	57.5	57.5
Elderly population aged 65+ as % of total	16.4	16.5	16.8	18.7	20.6	22.3	24.0	25.4	26.4	26.4	26.6
Very elderly population aged 80 and over as % of total	4.4	4.5	5.3	5.8	6.0	6.1	7.5	8.7	9.6	10.2	10.6
lerly population aged 55+ as % of working age pop.15-64	41.8	42.3	45.1	48.6	51.5	54.4	57.6	59.7	61.5	61.6	61.2
Macroeconomic assumptions											
Real GDP (growth rate)	2.1	2.2	2.4	1.9	1.6	1.8	1.6	1.6	1.6	1.6	1.6
Labour input (growth rate)	1.0	1.0	0.7	0.3	-0.1	0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Labour productivity (growth rate)	1.1	1.2	1.6	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	0.9	0.9	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.3	0.3	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.7	1.7	2.0	1.6	1.4	1.6	1.4	1.4	1.6	1.7	1.7
GDP in 2004 prices (in billions of euro)	1625	1661	1852	2056	2234	2433	2645	2857	3091	3348	3619
GDP per worker	21.2	21.6	23.5	25.7	27.5	29.6	31.8	34.1	36.8	39.9	43.4
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.5	0.2	-0.2	-0.1	-0.2	-0.3	-0.2	-0.2	-0.1	-0.1
Labour force (thousands)	27114	27372	28057	28238	28117	28112	28080	27860	27695	27557	27365
Participation rate (15-64)	69.6	69.9	70.2	71.1	71.1	71.7	72.5	72.8	73.4	73.1	73.1
young (15-24)	39.2	39.6	40.1	39.5	38.8	40.0	39.8	39.7	39.7	39.5	39.4
prime-age (25-54)	86.4	86.7	87.9	88.9	89.3	89.6	89.9	90.0	90.0	90.0	90.1
older (55-64)	40.2	42.3	43.8	46.5	48.5	50.5	53.4	52.9	54.9	54.4	54.1
oldest (65-71)	3.9	4.1	6.2	8.0	7.9	8.2	9.0	9.3	9.4	9.4	9.5
Employment rate (15-64)	63.1	63.5	64.4	66.1	66.2	66.7	67.4	67.7	68.2	68.0	68.0
Employment rate (15-71)	58.1	58.6	59.7	60.1	59.3	59.8	60.3	60.5	60.9	61.2	61.0
Employment growth (15-64)		1.1	0.7	0.3	-0.1	0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Unemployment rate (15-64)	9.3	9.1	8.3	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	9.3	10.1	12.2	13.1	14.0	14.6	15.4	14.6	14.8	15.1	14.8
Old-age dependency ratio (1)	25.2	25.3	25.8	29.4	33.0	36.5	40.2	43.4	45.9	45.9	46.4
Total dependency ratio (2)	53.7	53.7	53.8	57.5	60.6	63.9	67.7	71.1	73.9	73.8	74.0
Total economic dependency ratio	143.5	142.0	139.0	138.3	142.8	145.8	148.7	152.6	154.9	155.5	156.0
Economic old-age dependency ratio (15-64)	39.3	39.3	39.3	43.1	48.3	53.2	57.8	62.1	65.3	65.7	66.3
Economic old-age dependency ratio (15-71)	39.1	39.0	39.0	42.5	47.6	52.3	56.8	61.0	64.0	64.5	65.1

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

France

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
Old-age and early pensions, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
Social security pensions, net	12.2	12.1	12.3	12.5	13.0	13.3	13.6	14.1	14.2	14.1	14.0
Total pension expenditure, net	12.2	12.1	12.3	12.5	13.0	13.3	13.6	14.1	14.2	14.1	14.0
Social security pensions, contributions	12.8	12.8	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Total pension contributions	12.8	12.8	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Social security pensions, assets	1.2	1.5	2.0	2.9	4.0	3.5	2.8	2.2	1.5	0.8	:
All pensions, assets	1.2	1.5	2.0	2.9	4.0	3.5	2.8	2.2	1.5	0.8	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	95	95	95	95	95	95	95	95	95	95	95
Total pension expenditure, net / Total pension exp., gross, %	95	95	95	95	95	95	95	95	95	95	95
Social security pensions, number of pensioners , 1000 pers.	12925	12975	13815	15023	16288	17417	18484	19511	19948	20036	19931
All pensions, pensioners , 1000 pers.	12925	12975	13815	15023	16288	17417	18484	19511	19948	20036	19931
Number of pensioners aged 65+ , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:	:	:	:
Average gross social sec. pension, 1000€ in 2004 prices	16.1	16.4	17.4	18.0	18.8	19.6	20.5	21.7	23.2	24.9	26.9
Average gross total pensions, 1000€ in 2004 prices	16.1	16.4	17.4	18.0	18.8	19.6	20.5	21.7	23.2	24.9	26.9
Output / Worker, 1000€ in 2004 prices	66.1	66.9	72.0	78.3	85.4	93.1	101.3	110.3	120.0	130.6	142.2
Social sec. benefit ratio	24.4	24.6	24.1	23.0	22.0	21.1	20.3	19.7	19.3	19.1	18.9
Total pension benefit ratio	24.4	24.6	24.1	23.0	22.0	21.1	20.3	19.7	19.3	19.1	18.9
Social security pensions, num of contributors, in 1000	24645	24904	25796	26342	26229	26224	26194	25989	25835	25706	25527
Average social sec. pension contribution, 1000€ in 2004 prices	8.5	8.6	9.2	10.0	11.0	11.9	13.0	14.1	15.4	16.8	18.2
Average total pension contribution, 1000€ in 2004 prices	8.5	8.6	9.2	10.0	11.0	11.9	13.0	14.1	15.4	16.8	18.2
Support ratio (contributors /100 pensioners, social sec. pens.)	191	192	187	175	161	151	142	133	130	128	128
High life expectancy; as % of GDP											
Social security pensions, gross	12.8	12.8	13.0	13.2	13.8	14.2	14.6	15.2	15.4	15.4	15.4
Old-age and early pensions, gross	12.8	12.8	13.0	13.2	13.8	14.2	14.6	15.2	15.4	15.4	15.4
Total pension expenditure, gross	12.8	12.8	13.0	13.2	13.8	14.2	14.6	15.2	15.4	15.4	15.4
All pensions, assets	1.2	1.5	2.0	2.9	4.0	3.5	2.8	2.2	1.5	0.8	0.0
Higher labour productivity; as % of GDP											
Social security pensions, gross	12.8	12.8	13.0	13.1	13.5	13.8	14.0	14.5	14.6	14.5	14.4
Old-age and early pensions, gross	12.8	12.8	13.0	13.1	13.5	13.8	14.0	14.5	14.6	14.5	14.4
Total pension expenditure, gross	12.8	12.8	13.0	13.1	13.5	13.8	14.0	14.5	14.6	14.5	14.4
All pensions, assets	1.2	1.5	2.0	2.9	4.0	3.4	2.8	2.1	1.5	0.8	0.0
Lower labour productivity; as % of GDP											
Social security pensions, gross	12.8	12.8	13.0	13.3	13.9	14.3	14.7	15.3	15.4	15.4	15.3
Old-age and early pensions, gross	12.8	12.8	13.0	13.3	13.9	14.3	14.7	15.3	15.4	15.4	15.3
Total pension expenditure, gross	12.8	12.8	13.0	13.3	13.9	14.3	14.7	15.3	15.4	15.4	15.3
All pensions, assets	1.2	1.5	2.0	2.9	4.1	3.5	2.9	2.3	1.6	0.8	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	12.8	12.8	12.9	13.1	13.6	13.9	14.2	14.7	14.9	14.8	14.7
Old-age and early pensions, gross	12.8	12.8	12.9	13.1	13.6	13.9	14.2	14.7	14.9	14.8	14.7
Total pension expenditure, gross	12.8	12.8	12.9	13.1	13.6	13.9	14.2	14.7	14.9	14.8	14.7
All pensions, assets	1.2	1.5	2.0	2.9	4.0	3.4	2.8	2.2	1.5	0.8	0.0
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	12.8	12.8	12.8	12.9	13.3	13.6	13.9	14.4	14.6	14.5	14.4
Old-age and early pensions, gross	12.8	12.8	12.8	12.9	13.3	13.6	13.9	14.4	14.6	14.5	14.4
Total pension expenditure, gross	12.8	12.8	12.8	12.9	13.3	13.6	13.9	14.4	14.6	14.5	14.4
All pensions, assets	1.2	1.5	2.0	2.9	4.0	3.4	2.8	2.2	1.5	0.8	0.0
Lower interest rate; as % of GDP											
Social security pensions, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
Old-age and early pensions, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
Total pension expenditure, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
All pensions, assets	1.2	1.5	1.9	2.7	3.7	3.1	2.5	1.9	1.3	0.6	0.0
Higher interest rate; as % of GDP											
Social security pensions, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
Old-age and early pensions, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
Total pension expenditure, gross	12.8	12.8	12.9	13.2	13.7	14.0	14.3	14.8	15.0	14.9	14.8
All pensions, assets	1.2	1.5	2.1	3.1	4.5	3.9	3.3	2.6	1.8	1.0	0.0

: = data not provided

France

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	7.7	7.7	8.0	8.2	8.4	8.7	9.0	9.2	9.4	9.5	9.5
Constant health scenario	7.7	7.7	7.8	7.9	8.0	8.2	8.4	8.6	8.7	8.8	8.8
Death-related costs scenario	7.7	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.0	9.1	9.1
Income elasticity of demand	7.7	7.8	8.1	8.4	8.6	8.9	9.2	9.5	9.7	9.8	9.9
Unit costs - GDP per worker	7.7	7.7	7.8	8.0	8.4	8.8	9.2	9.6	9.9	10.0	10.1
AWG reference scenario	7.7	7.7	8.0	8.2	8.4	8.6	8.9	9.2	9.3	9.4	9.5
Long-term care spending as % of GDP											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
Number of dependent people (in thousands)											
Pure ageing scenario	1973	2012	2185	2387	2624	2915	3281	3610	3844	3950	3983
Unit costs - GDP per capita	1973	2012	2185	2387	2624	1474	3281	3610	3844	3950	3983
Constant disability scenario	1973	1984	2015	1734	2115	2194	2363	2509	2585	2583	2536
Increase in formal care	1973	2012	2185	2387	2624	2915	3281	3610	3844	3950	3983
AWG reference scenario	1973	1998	2100	2224	2369	2555	2822	3059	3215	3266	3259
of which receiving formal care											
Pure ageing scenario	0	0	0	0	0	0	0	0	0	0	0
Unit costs - GDP per capita	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
Increase in formal care	0	101	579	1029	1469	1632	1837	2021	2152	2211	2230
AWG reference scenario	0	0	0	0	0	0	0	0	0	0	0
of which receiving informal or no care											
Pure ageing scenario	1973	2012	2185	2387	2624	2915	3281	3610	3844	3950	3983
Unit costs - GDP per capita	1973	2012	2185	2387	2624	1474	3281	3610	3844	3950	3983
Constant disability scenario	1973	1984	2015	1734	2115	2194	2363	2509	2585	2583	2536
Increase in formal care	1973	1912	1606	1358	1155	1283	1444	1589	1692	1738	1753
AWG reference scenario	1973	1998	2100	2224	2369	2555	2822	3059	3215	3266	3259
Education spending as % of GDP											
Total	5.0	4.9	4.7	4.6	4.6	4.6	4.5	4.5	4.5	4.5	4.5
of which: Transfers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Primary	1.1	1.1	1.2	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.4	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.4	1.4	1.3	1.2	1.3	1.3	1.2	1.2	1.2	1.2	1.2
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tertiary education	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Number of students (in thousands)											
Total	11730	11673	11667	11703	11667	11475	11280	11156	11103	11076	11004
Primary	3779	3800	4033	3940	3843	3781	3731	3715	3734	3713	3652
Low secondary	3250	3203	3141	3337	3240	3163	3113	3073	3062	3078	3059
Upper secondary	2615	2610	2498	2508	2631	2548	2496	2459	2430	2428	2437
Tertiary education	2085	2060	1996	1918	1954	1982	1940	1909	1877	1857	1856
Memo											
Population aged 15-64 (in thousands)	38969	39152	39961	39721	39526	39208	38729	38256	37750	37687	37440
Unemployment benefit spending as % of GDP	1.2	1.2	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Ireland

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Life expectancy at birth											
males	75.5	75.7	76.8	77.8	78.7	79.5	80.2	80.8	81.3	81.7	82.2
females	80.7	80.9	81.8	82.8	83.6	84.4	85.0	85.6	86.0	86.5	86.8
Life expectancy at 65											
males	15.4	15.5	16.2	17.0	17.6	18.2	18.7	19.1	19.5	19.9	20.2
females	18.6	18.7	19.4	20.2	20.8	21.4	21.9	22.3	22.7	23.1	23.4
Net migration (thousand)	16.4	16.1	15.3	15.0	14.0	13.4	12.9	12.8	12.6	12.5	12.4
Net migration as % of population	0.41	0.40	0.35	0.33	0.30	0.27	0.26	0.25	0.24	0.23	0.23
Population (million)	4.0	4.1	4.3	4.6	4.8	4.9	5.1	5.2	5.3	5.4	5.5
Population aged 0-14 as % of total	20.9	20.8	21.0	20.8	19.8	18.2	16.8	16.2	16.1	16.2	16.0
Prime age population (25-54) as % of total	42.7	43.0	43.9	43.3	41.9	40.7	39.4	38.1	36.9	36.2	36.0
Working age population (15-64) as % of total	68.0	68.0	67.3	66.0	65.4	65.3	64.8	63.7	61.7	59.5	57.8
Elderly population aged 65+ as % of total	11.1	11.2	11.8	13.2	14.8	16.5	18.4	20.2	22.2	24.3	26.2
Very elderly population aged 80 and over as % of total	2.6	2.7	2.8	3.0	3.3	3.8	4.7	5.6	6.4	7.2	8.0
lerly population aged 55+ as % of working age pop.15-64	2.5	2.5	2.8	3.1	3.3	3.5	3.8	4.1	4.5	4.9	5.1
Macroeconomic assumptions											
Real GDP (growth rate)	6.1	5.7	5.2	4.2	3.0	2.6	2.1	1.8	1.4	1.3	1.6
Labour input (growth rate)	2.7	2.4	1.4	1.0	0.8	0.7	0.4	0.1	-0.3	-0.5	-0.2
Labour productivity (growth rate)	3.3	3.3	3.8	3.2	2.2	1.9	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	2.5	2.4	2.9	2.1	1.3	1.2	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.8	0.8	0.9	1.1	0.9	0.8	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	4.4	4.5	4.0	3.2	2.2	2.0	1.6	1.3	1.0	0.9	1.4
GDP in 2004 prices (in billions of euro)	146	154	200	251	298	342	384	423	456	488	523
GDP per worker	26.6	27.8	34.0	40.4	46.0	51.0	55.6	59.7	63.1	66.2	70.1
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		1.2	0.8	0.7	0.7	0.6	0.3	0.0	-0.3	-0.5	-0.2
Labour force (thousands)	1909	1955	2135	2258	2358	2449	2517	2549	2529	2481	2444
Participation rate (15-64)	69.7	70.6	73.4	75.1	75.7	76.1	76.7	77.0	77.1	77.0	77.2
young (15-24)	53.6	54.0	54.0	52.0	50.9	51.6	53.0	53.7	53.6	52.8	52.1
prime-age (25-54)	79.9	80.6	83.3	84.8	85.8	86.4	86.7	86.8	86.8	86.7	86.8
older (55-64)	51.0	51.8	56.3	61.6	65.4	67.5	69.3	69.9	69.8	69.1	69.5
oldest (65-71)	16.3	16.6	18.0	19.3	19.7	20.4	20.6	20.8	21.1	21.0	20.5
Employment rate (15-64)	66.7	67.7	70.9	72.5	73.2	73.6	74.0	74.4	74.5	74.4	74.6
Employment rate (15-71)	63.5	64.5	67.2	68.1	68.4	68.5	68.6	68.5	68.0	67.3	67.0
Employment growth (15-64)		2.7	1.4	1.0	0.8	0.7	0.4	0.1	-0.3	-0.5	-0.2
Unemployment rate (15-64)	4.3	4.0	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Dependency ratios:											
Share of older workers	10.1	10.4	12.0	13.4	15.0	16.2	17.8	19.6	20.6	19.6	18.1
Old-age dependency ratio (1)	16.4	16.5	17.5	20.0	22.5	25.2	28.3	31.7	36.0	40.9	45.2
Total dependency ratio (2)	47.1	47.1	48.7	51.5	52.8	53.1	54.3	57.1	62.1	68.1	72.9
Total economic dependency ratio	120.4	117.2	109.6	108.9	108.9	108.1	108.4	111.2	117.7	125.9	132.0
Economic old-age dependency ratio (15-64)	22.9	22.7	22.8	25.1	28.2	31.4	35.1	39.2	44.4	50.6	56.3
Economic old-age dependency ratio (15-71)	22.5	22.3	22.4	24.5	27.4	30.5	34.0	37.9	42.8	48.5	53.9

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Ireland

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	4.7	4.6	5.2	5.9	6.5	7.2	7.9	8.5	9.3	10.3	11.1
Old-age and early pensions, gross	3.5	3.5	4.0	4.7	5.2	6.0	6.6	7.2	8.0	9.0	9.9
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	1.3	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, net	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, contributions	3.6	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Total pension contributions	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, assets	7.3	8.0	11.1	14.4	18.1	22.5	26.0	27.9	28.3	26.5	21.9
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net / Total pension exp., gross, %	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, number of pensioners , 1000 pers.	606	658	721	814	916	1033	1162	1283	1416	1550	1674
All pensions, pensioners , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Number of pensioners aged 65+ , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:	:	:	:
Average gross social sec. pension, 1000€ in 2004 prices	11.4	10.8	14.5	18.2	21.1	23.9	26.0	28.1	30.1	32.4	34.8
Average gross total pensions, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Output / Worker, 1000€ in 2004 prices	79.8	82.4	97.0	114.9	130.7	144.4	157.8	171.6	186.8	203.4	221.5
Social sec. benefit ratio	14.3	13.1	14.9	15.9	16.2	16.6	16.5	16.4	16.1	15.9	15.7
Total pension benefit ratio	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, num of contributors, in 1000	2661	2733	3003	3175	3317	3445	3541	3585	3557	3489	3437
Average social sec. pension contribution, 1000€ in 2004 prices	2.0	2.0	2.3	2.7	3.0	3.3	3.6	4.0	4.3	4.7	5.1
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	439	415	416	390	362	333	305	279	251	225	205
High life expectancy; as % of GDP											
Social security pensions, gross	4.7	4.6	5.2	5.9	6.5	7.3	8.0	8.7	9.5	10.5	11.5
Old-age and early pensions, gross	3.5	3.5	4.0	4.7	5.3	6.0	6.7	7.4	8.2	9.2	10.2
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	4.7	4.6	5.2	5.9	6.5	7.3	7.9	8.6	9.4	10.3	11.2
Old-age and early pensions, gross	3.5	3.5	4.0	4.7	5.2	6.0	6.6	7.3	8.1	9.0	9.9
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	4.7	4.6	5.2	5.9	6.5	7.2	7.9	8.5	9.3	10.3	11.1
Old-age and early pensions, gross	3.5	3.5	4.0	4.7	5.2	6.0	6.6	7.2	8.0	9.0	9.8
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	4.7	4.6	5.2	5.9	6.5	7.2	7.8	8.5	9.3	10.2	11.1
Old-age and early pensions, gross	3.5	3.5	4.0	4.6	5.2	5.9	6.6	7.2	8.0	8.9	9.8
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	4.7	4.6	5.2	5.9	6.5	7.2	7.8	8.5	9.3	10.2	11.0
Old-age and early pensions, gross	3.5	3.5	4.0	4.7	5.2	5.9	6.6	7.2	8.0	8.9	9.8
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	4.7	4.6	5.2	5.9	6.5	7.2	7.9	8.5	9.3	10.3	11.1
Old-age and early pensions, gross	3.5	3.5	4.0	4.7	5.2	6.0	6.6	7.2	8.0	9.0	9.9
Total pension expenditure, gross	4.7	4.6	5.2	5.9	6.5	7.2	7.9	8.5	9.3	10.3	11.1
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	4.7	4.6	5.2	5.9	6.5	7.2	7.9	8.5	9.3	10.3	11.1
Old-age and early pensions, gross	3.5	3.5	4.0	4.7	5.2	6.0	6.6	7.2	8.0	9.0	9.9
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:

: = data not provided

Ireland

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.3	5.3	5.5	5.7	5.9	6.1	6.4	6.6	6.9	7.1	7.3
Constant health scenario	5.3	5.3	5.3	5.4	5.5	5.6	5.8	6.0	6.1	6.3	6.4
Death-related costs scenario	5.3	5.3	5.4	5.5	5.7	5.9	6.1	6.3	6.5	6.6	6.8
Income elasticity of demand	5.3	5.3	5.6	5.9	6.1	6.4	6.8	7.1	7.3	7.5	7.7
Unit costs - GDP per worker	5.3	5.3	5.2	5.4	5.6	5.8	6.1	6.4	6.8	7.3	7.7
AWG reference scenario	5.3	5.3	5.5	5.7	5.9	6.2	6.4	6.7	6.9	7.1	7.3
Long-term care spending as % of GDP											
Pure ageing scenario	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.9	1.0	1.2	1.3
Unit costs - GDP per capita	0.6	0.6	0.6	0.6	0.7	0.5	0.8	0.9	1.0	1.1	1.2
Constant disability scenario	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.9	1.0
Increase in formal care	0.6	0.6	0.6	0.7	0.7	0.8	1.0	1.1	1.2	1.4	1.6
AWG reference scenario	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.9	1.1	1.2
Number of dependent people (in thousands)											
Pure ageing scenario	91	93	103	118	137	162	193	223	254	287	319
Unit costs - GDP per capita	91	93	103	118	137	81	193	223	254	287	319
Constant disability scenario	91	92	94	83	109	122	138	153	168	184	199
Increase in formal care	91	93	103	118	137	162	193	223	254	287	319
AWG reference scenario	91	92	98	109	123	142	165	188	211	236	259
of which receiving formal care											
Pure ageing scenario	49	50	55	62	72	87	106	125	144	164	184
Unit costs - GDP per capita	49	50	55	62	72	87	106	125	144	164	184
Constant disability scenario	49	50	52	55	60	68	81	92	102	114	124
Increase in formal care	49	52	68	86	109	129	154	180	206	233	259
AWG reference scenario	49	50	54	59	66	78	93	108	123	139	154
of which receiving informal or no care											
Pure ageing scenario	42	43	47	55	65	76	87	98	111	123	135
Unit costs - GDP per capita	42	43	47	55	65	30	87	98	111	123	135
Constant disability scenario	42	42	43	36	49	53	57	61	66	71	75
Increase in formal care	42	41	35	31	29	33	38	43	49	54	60
AWG reference scenario	42	42	45	50	57	64	72	80	88	97	105
Education spending as % of GDP											
Total	4.1	4.0	3.5	3.5	3.4	3.4	3.2	3.0	3.0	3.0	3.1
of which: Transfers	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Primary	1.4	1.3	1.3	1.4	1.3	1.2	1.1	1.0	1.1	1.1	1.2
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	0.7	0.7	0.6	0.6	0.7	0.6	0.6	0.5	0.5	0.6	0.6
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tertiary education	1.2	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Number of students (in thousands)											
Total	992	983	983	1029	1065	1061	1021	981	967	977	992
Primary	450	453	494	533	531	502	470	458	469	486	489
Low secondary	174	172	166	179	199	199	189	175	170	174	181
Upper secondary	192	187	170	175	189	200	198	186	175	173	177
Tertiary education	177	171	154	143	146	159	164	161	152	146	145
Memo											
Population aged 15-64 (in thousands)	2738	2771	2908	3008	3113	3216	3284	3311	3281	3220	3166
Unemployment benefit spending as % of GDP	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

Italy

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Life expectancy at birth											
males	77.3	77.5	78.3	79.1	79.9	80.5	81.1	81.6	82.1	82.4	82.8
females	83.2	83.3	84.0	84.7	85.3	85.9	86.4	86.8	87.2	87.5	87.8
Life expectancy at 65											
males	16.7	16.8	17.3	17.8	18.3	18.8	19.2	19.5	19.8	20.1	20.4
females	20.6	20.7	21.2	21.7	22.2	22.6	23.0	23.3	23.6	23.9	24.1
Net migration (thousand)	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
Net migration as % of population	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.28
Population (million)	57.9	58.0	58.5	58.6	58.4	58.0	57.5	56.9	56.1	55.1	53.8
Population aged 0-14 as % of total	14.2	14.2	13.9	13.7	13.0	12.2	11.8	11.6	11.6	11.6	11.5
Prime age population (25-54) as % of total	43.9	43.8	43.1	41.9	39.9	37.5	35.5	34.4	34.0	33.9	33.7
Working age population (15-64) as % of total	66.6	66.3	65.5	64.3	63.8	63.0	61.1	58.5	56.1	54.7	54.6
Elderly population aged 65+ as % of total	19.2	19.5	20.6	22.0	23.2	24.7	27.1	29.9	32.3	33.7	33.9
Very elderly population aged 80 and over as % of total	4.8	5.0	5.8	6.6	7.3	7.7	8.6	9.2	10.1	11.7	13.3
lerly population aged 55+ as % of working age pop.15-64	39.5	40.1	41.9	44.1	46.0	48.4	51.7	55.0	57.3	57.9	56.8
Macroeconomic assumptions											
Real GDP (growth rate)	1.9	1.5	1.9	1.9	1.6	1.2	0.9	0.7	0.8	1.1	1.2
Labour input (growth rate)	1.6	0.8	0.7	0.2	-0.2	-0.5	-0.8	-1.0	-0.9	-0.6	-0.5
Labour productivity (growth rate)	0.3	0.7	1.2	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	0.2	0.3	0.8	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.1	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	0.9	1.3	1.7	1.9	1.7	1.4	1.1	1.0	1.1	1.5	1.7
GDP in 2004 prices (in billions of euro)	1351	1371	1509	1655	1802	1927	2036	2118	2199	2310	2450
GDP per worker	20.1	20.4	22.2	24.3	26.6	28.6	30.5	32.1	33.8	36.1	39.2
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		-0.2	-0.1	-0.3	-0.3	-0.5	-1.0	-1.1	-1.1	-0.7	-0.5
Labour force (thousands)	24148	24180	25209	25395	25393	24871	24116	23026	21935	21157	20609
Participation rate (15-64)	62.6	62.9	65.8	67.4	68.1	68.0	68.6	69.2	69.7	70.2	70.2
young (15-24)	37.2	36.8	37.0	37.3	36.5	37.1	37.8	37.8	37.5	37.2	37.1
prime-age (25-54)	77.4	77.6	80.9	82.2	83.2	83.7	83.9	83.9	84.0	84.1	84.1
older (55-64)	31.2	32.1	36.8	41.7	47.4	50.0	53.2	54.4	54.2	54.8	55.3
oldest (65-71)	5.8	6.1	6.0	7.0	7.2	7.8	8.2	8.1	8.2	7.9	8.0
Employment rate (15-64)	57.4	57.7	61.0	63.0	63.7	63.6	64.2	64.7	65.2	65.6	65.7
Employment rate (15-71)	52.2	52.4	55.3	56.8	57.2	56.8	56.3	55.7	55.8	56.5	57.5
Employment growth (15-64)		0.4	0.7	0.2	-0.2	-0.5	-0.8	-1.0	-0.9	-0.6	-0.5
Unemployment rate (15-64)	8.4	8.2	7.3	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Dependency ratios:											
Share of older workers	9.0	9.3	10.6	12.2	15.4	18.2	20.4	20.3	18.6	17.6	17.7
Old-age dependency ratio (1)	28.9	29.5	31.4	34.2	36.4	39.2	44.4	51.0	57.6	61.5	62.2
Total dependency ratio (2)	50.2	50.8	52.7	55.5	56.7	58.6	63.6	70.8	78.2	82.7	83.2
Total economic dependency ratio	161.7	161.3	150.1	146.8	145.9	149.4	155.0	164.2	173.5	178.4	179.0
Economic old-age dependency ratio (15-64)	49.2	49.9	50.3	53.0	55.7	60.0	67.1	76.6	85.8	91.5	92.7
Economic old-age dependency ratio (15-71)	48.6	49.3	49.8	52.3	54.9	59.1	65.7	74.8	83.8	89.5	90.9

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Italy

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	14.2	14.3	14.0	13.8	14.0	14.4	15.0	15.6	15.9	15.4	14.7
Old-age and early pensions, gross	13.9	14.0	13.7	13.6	13.7	14.2	14.9	15.5	15.7	15.3	14.5
Of which: earnings-related pensions, gross	13.7	13.7	13.4	13.3	13.4	13.8	14.4	14.9	15.2	14.8	14.0
Private sector employees, gross	10.5	10.5	10.2	10.0	10.0	10.3	10.9	11.4	11.7	11.4	10.8
Public sector employees, gross	3.2	3.3	3.2	3.3	3.4	3.5	3.5	3.5	3.5	3.4	3.2
Other pensions (disability, survivors), gross	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	14.2	14.3	14.0	13.8	14.0	14.4	15.0	15.6	15.9	15.4	14.7
Social security pensions, net	12.2	12.2	11.9	11.8	11.9	12.3	13.0	13.6	13.8	13.4	12.6
Total pension expenditure, net	12.2	12.2	11.9	11.8	11.9	12.3	13.0	13.6	13.8	13.4	12.6
Social security pensions, contributions	10.2	10.2	10.3	10.4	10.4	10.4	10.3	10.3	10.5	10.6	10.6
Total pension contributions	10.2	10.2	10.3	10.4	10.4	10.4	10.3	10.3	10.5	10.6	10.6
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	86	86	85	85	85	86	86	87	87	87	86
Total pension expenditure, net / Total pension exp., gross, %	86	86	85	85	85	86	86	87	87	87	86
Social security pensions, number of pensioners , 1000 pers.	15595	15619	15665	16088	16783	17777	19131	20188	20774	20639	20206
All pensions, pensioners , 1000 pers.	15595	15619	15665	16088	16783	17777	19131	20188	20774	20639	20206
Number of pensioners aged 65+ , 1000 pers.	11318	11486	12003	12908	13516	14280	15524	16808	17826	18060	17638
Share of pensioners below age 65 as % of all pensioners	27.4	26.5	23.4	19.8	19.5	19.7	18.9	16.7	14.2	12.5	12.7
Average gross social sec. pension, 1000€ in 2004 prices	12.3	12.5	13.4	14.2	15.0	15.6	16.0	16.4	16.8	17.3	17.8
Average gross total pensions, 1000€ in 2004 prices	12.3	12.5	13.4	14.2	15.0	15.6	16.0	16.4	16.8	17.3	17.8
Output / Worker, 1000€ in 2004 prices	61.8	62.2	64.5	69.7	75.9	82.8	90.3	98.4	107.2	116.8	127.2
Social sec. benefit ratio	20.0	20.1	20.8	20.4	19.8	18.8	17.7	16.7	15.7	14.8	14.0
Total pension benefit ratio	20.0	20.1	20.8	20.4	19.8	18.8	17.7	16.7	15.7	14.8	14.0
Social security pensions, num of contributors, in 1000	22777	22951	24247	24755	24775	24323	23378	22373	21440	20830	20340
Average social sec. pension contribution, 1000€ in 2004 prices	6.0	6.1	6.4	6.9	7.6	8.2	8.9	9.8	10.7	11.7	12.8
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	146	147	155	154	148	137	122	111	103	101	101
High life expectancy; as % of GDP											
Social security pensions, gross	14.2	14.3	14.0	13.9	14.1	14.5	15.2	15.8	16.1	15.7	14.9
Old-age and early pensions, gross	13.9	14.0	13.7	13.6	13.8	14.3	15.0	15.6	15.9	15.5	14.8
Total pension expenditure, gross	14.2	14.3	14.0	13.9	14.1	14.5	15.2	15.8	16.1	15.7	14.9
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	14.2	14.3	14.0	13.7	13.7	14.0	14.6	15.1	15.4	14.9	14.1
Old-age and early pensions, gross	13.9	14.0	13.7	13.5	13.5	13.8	14.4	15.0	15.2	14.7	14.0
Total pension expenditure, gross	14.2	14.3	14.0	13.7	13.7	14.0	14.6	15.1	15.4	14.9	14.1
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	14.2	14.3	14.0	13.9	14.2	14.7	15.5	16.1	16.5	16.0	15.2
Old-age and early pensions, gross	13.9	14.0	13.7	13.7	14.0	14.5	15.3	16.0	16.3	15.9	15.1
Total pension expenditure, gross	14.2	14.3	14.0	13.9	14.2	14.7	15.5	16.1	16.5	16.0	15.2
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	14.2	14.3	13.9	13.7	13.9	14.3	14.9	15.5	15.8	15.4	14.7
Old-age and early pensions, gross	13.9	14.0	13.6	13.5	13.6	14.1	14.8	15.4	15.7	15.3	14.5
Total pension expenditure, gross	14.2	14.3	13.9	13.7	13.9	14.3	14.9	15.5	15.8	15.4	14.7
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	14.2	14.3	13.9	13.7	13.8	14.2	14.9	15.6	16.0	15.6	14.8
Old-age and early pensions, gross	13.9	14.0	13.6	13.5	13.6	14.0	14.7	15.5	15.8	15.4	14.7
Total pension expenditure, gross	14.2	14.3	13.9	13.7	13.8	14.2	14.9	15.6	16.0	15.6	14.8
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	14.2	14.3	14.0	13.8	14.0	14.4	15.0	15.6	15.9	15.4	14.7
Old-age and early pensions, gross	13.9	14.0	13.7	13.6	13.7	14.2	14.9	15.5	15.7	15.3	14.5
Total pension expenditure, gross	14.2	14.3	14.0	13.8	14.0	14.4	15.0	15.6	15.9	15.4	14.7
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	14.2	14.3	14.0	13.8	14.0	14.4	15.0	15.6	15.9	15.4	14.7
Old-age and early pensions, gross	13.9	14.0	13.7	13.6	13.7	14.2	14.9	15.5	15.7	15.3	14.5
Total pension expenditure, gross	14.2	14.3	14.0	13.8	14.0	14.4	15.0	15.6	15.9	15.4	14.7
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:

: = data not provided

Italy

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.8	5.8	6.0	6.1	6.3	6.5	6.7	6.9	7.0	7.1	7.2
Constant health scenario	5.8	5.8	5.8	5.9	6.0	6.1	6.3	6.4	6.5	6.6	6.6
Death-related costs scenario	5.8	5.8	5.9	6.0	6.2	6.3	6.5	6.7	6.8	6.8	6.8
Income elasticity of demand	5.8	5.8	6.0	6.2	6.4	6.7	6.9	7.1	7.3	7.4	7.4
Unit costs - GDP per worker	5.8	5.8	5.7	5.8	5.9	6.2	6.5	7.0	7.4	7.7	7.8
AWG reference scenario	5.8	5.8	6.0	6.1	6.3	6.5	6.7	6.9	7.0	7.1	7.1
Long-term care spending as % of GDP											
Pure ageing scenario	1.5	1.5	1.5	1.6	1.6	1.7	1.8	1.9	2.0	2.2	2.4
Unit costs - GDP per capita	1.5	1.6	1.6	1.7	1.7	1.5	1.8	1.9	2.0	2.1	2.2
Constant disability scenario	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.7	1.8	1.9	2.0
Increase in formal care	1.5	1.6	1.7	1.9	2.1	2.2	2.3	2.5	2.8	3.0	3.3
AWG reference scenario	1.5	1.5	1.5	1.5	1.6	1.6	1.7	1.8	1.9	2.1	2.2
Number of dependent people (in thousands)											
Pure ageing scenario	2214	2267	2494	2702	2880	3050	3286	3557	3859	4131	4272
Unit costs - GDP per capita	2214	2267	2494	2702	2880	1568	3286	3557	3859	4131	4272
Constant disability scenario	2214	2234	2290	1935	2319	2309	2362	2431	2531	2645	2698
Increase in formal care	2214	2267	2494	2702	2880	3050	3286	3557	3859	4131	4272
AWG reference scenario	2214	2250	2392	2510	2600	2680	2824	2994	3195	3388	3485
of which receiving formal care											
Pure ageing scenario	1126	1155	1274	1392	1485	1570	1703	1835	1976	2114	2201
Unit costs - GDP per capita	1126	1155	1274	1392	1485	1570	1703	1835	1976	2114	2201
Constant disability scenario	1126	1139	1175	1202	1208	1203	1241	1274	1321	1383	1423
Increase in formal care	1126	1211	1597	1957	2266	2399	2589	2799	3030	3243	3360
AWG reference scenario	1126	1147	1225	1297	1346	1386	1472	1554	1648	1749	1812
of which receiving informal or no care											
Pure ageing scenario	1088	1112	1220	1310	1395	1481	1583	1722	1883	2017	2071
Unit costs - GDP per capita	1088	1112	1220	1310	1395	732	1583	1722	1883	2017	2071
Constant disability scenario	1088	1095	1116	922	1112	1106	1121	1157	1210	1262	1275
Increase in formal care	1088	1056	897	745	614	652	697	758	829	888	912
AWG reference scenario	1088	1103	1168	1213	1253	1293	1352	1440	1547	1639	1673
Education spending as % of GDP											
Total	4.3	4.2	3.9	3.8	3.7	3.6	3.5	3.5	3.6	3.7	3.7
of which: Transfers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Primary	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.3	1.3	1.2	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Number of students (in thousands)											
Total	9313	9243	8953	8881	8702	8313	7860	7498	7279	7147	7005
Primary	2766	2753	2836	2836	2652	2449	2325	2273	2254	2227	2155
Low secondary	1857	1834	1747	1807	1784	1658	1536	1469	1442	1433	1412
Upper secondary	2741	2739	2676	2622	2691	2616	2432	2270	2186	2150	2133
Tertiary education	1949	1916	1695	1617	1575	1590	1568	1485	1397	1337	1304
Memo											
Population aged 15-64 (in thousands)	38549	38454	38295	37687	37265	36563	35138	33288	31467	30146	29342
Unemployment benefit spending as % of GDP	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

Cyprus

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.5	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Life expectancy at birth											
males	76.3	76.5	77.5	78.3	79.0	79.6	80.2	80.7	81.1	81.5	81.9
females	80.8	80.9	81.6	82.3	82.8	83.3	83.7	84.1	84.5	84.8	85.1
Life expectancy at 65											
males	16.2	16.3	16.9	17.4	17.9	18.3	18.7	19.0	19.3	19.6	19.9
females	18.3	18.5	19.0	19.5	19.9	20.3	20.6	20.9	21.2	21.4	21.7
Net migration (thousand)	6.1	6.2	6.3	5.5	4.5	4.5	4.6	4.7	4.8	4.8	4.9
Net migration as % of population	0.83	0.83	0.81	0.67	0.53	0.50	0.50	0.50	0.50	0.50	0.50
Population (million)	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0
Population aged 0-14 as % of total	20.0	19.4	16.6	15.2	15.4	15.6	15.3	14.3	13.4	13.1	13.3
Prime age population (25-54) as % of total	42.5	42.6	43.8	43.9	43.5	42.7	41.4	40.1	38.1	36.8	35.9
Working age population (15-64) as % of total	68.1	68.4	70.0	69.5	67.4	65.2	63.8	63.6	63.6	62.9	60.5
Elderly population aged 65+ as % of total	11.9	12.1	13.4	15.3	17.2	19.1	21.0	22.0	22.9	24.0	26.1
Very elderly population aged 80 and over as % of total	2.6	2.7	2.9	3.2	3.8	4.5	5.4	6.3	7.2	8.0	8.2
lerly population aged 55+ as % of working age pop.15-64	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9
Macroeconomic assumptions											
Real GDP (growth rate)	3.9	3.3	4.5	4.2	3.4	2.9	2.8	2.2	2.0	1.5	1.2
Labour input (growth rate)	1.9	0.9	1.6	1.2	0.4	0.0	0.1	0.3	0.1	-0.3	-0.5
Labour productivity (growth rate)	1.9	2.4	2.9	3.0	2.9	2.8	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	1.1	1.2	1.5	1.7	1.7	1.7	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	0.8	1.2	1.5	1.3	1.2	1.1	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	1.7	2.1	3.3	3.1	2.5	2.2	2.3	1.9	1.8	1.3	1.0
GDP in 2004 prices (in billions of euro)	12	13	16	20	24	28	32	36	40	44	47
GDP per worker	16.5	16.8	19.8	23.4	26.8	30.0	33.5	37.2	40.7	43.8	46.2
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		1.7	1.5	0.5	0.2	0.0	0.2	0.4	0.2	-0.2	-0.6
Labour force (thousands)	360	371	422	458	474	478	480	485	490	487	476
Participation rate (15-64)	72.3	73.4	76.8	79.6	81.2	81.7	81.6	81.2	80.9	80.4	80.7
young (15-24)	44.1	44.9	45.6	48.1	47.9	45.3	44.2	44.7	45.9	46.9	47.1
prime-age (25-54)	86.9	87.9	91.0	93.0	94.0	94.5	94.6	94.5	94.3	94.2	94.2
older (55-64)	54.6	56.6	62.8	65.5	66.9	67.1	69.0	70.9	72.6	71.0	70.6
oldest (65-71)	15.1	16.2	16.9	17.9	17.4	17.7	17.2	17.0	17.9	18.6	18.8
Employment rate (15-64)	69.2	70.5	73.6	76.2	77.8	78.2	78.2	77.8	77.5	77.0	77.3
Employment rate (15-71)	65.4	66.5	69.1	71.0	71.8	71.7	71.1	71.1	71.0	70.1	69.0
Employment growth (15-64)		3.5	1.6	1.2	0.4	0.0	0.1	0.3	0.1	-0.3	-0.5
Unemployment rate (15-64)	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Dependency ratios:											
Share of older workers	11.0	11.5	13.3	14.7	15.8	15.7	15.9	17.1	20.1	21.4	21.1
Old-age dependency ratio (1)	17.5	17.7	19.1	22.1	25.5	29.3	32.9	34.7	36.1	38.2	43.2
Total dependency ratio (2)	46.9	46.1	42.8	44.0	48.4	53.3	56.8	57.2	57.2	59.0	65.2
Total economic dependency ratio	112.1	107.4	94.0	88.9	90.7	96.0	100.6	102.0	102.9	106.4	113.6
Economic old-age dependency ratio (15-64)	23.6	23.4	24.1	26.6	30.3	34.8	39.2	41.9	43.8	46.4	51.9
Economic old-age dependency ratio (15-71)	23.2	23.0	23.6	26.0	29.6	33.8	38.1	40.8	42.6	45.0	49.9

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Cyprus

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
Old-age and early pensions, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
Social security pensions, net	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, contributions	5.5	5.7	6.4	6.9	7.2	7.2	7.2	7.3	7.4	7.3	7.1
Total pension contributions	5.5	5.7	6.4	6.9	7.2	7.2	7.2	7.3	7.4	7.3	7.1
Social security pensions, assets	39.3	38.7	39.6	39.7	37.9	33.4	25.1	14.7	1.9	:	:
All pensions, assets	39.3	38.7	39.6	39.7	37.9	33.4	25.1	14.7	1.9	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net / Total pension exp., gross, %	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, number of pensioners , 1000 pers.	89	91	113	138	166	194	218	232	243	260	293
All pensions, pensioners , 1000 pers.	89	91	113	138	166	194	218	232	243	260	293
Number of pensioners aged 65+ , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:	:	:	:
Average gross social sec. pension, 1000€ in 2004 prices	9.6	9.8	11.4	12.7	14.2	15.5	17.9	21.0	24.7	28.0	31.4
Average gross total pensions, 1000€ in 2004 prices	9.6	9.8	11.4	12.7	14.2	15.5	17.9	21.0	24.7	28.0	31.4
Output / Worker, 1000€ in 2004 prices	37.5	38.4	39.8	45.7	52.8	60.8	69.6	77.8	85.5	93.5	102.0
Social sec. benefit ratio	25.6	25.6	28.6	27.9	26.9	25.5	25.7	27.0	28.9	29.9	30.8
Total pension benefit ratio	25.6	25.6	28.6	27.9	26.9	25.5	25.7	27.0	28.9	29.9	30.8
Social security pensions, num of contributors, in 1000	344	356	404	438	454	458	459	465	469	467	456
Average social sec. pension contribution, 1000€ in 2004 prices	2.0	2.0	2.5	3.2	3.8	4.4	5.0	5.7	6.3	6.8	7.3
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	387	390	359	317	273	235	211	200	193	180	156
High life expectancy; as % of GDP											
Social security pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Old-age and early pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	6.9	7.0	8.0	8.8	9.7	10.6	11.7	12.8	14.1	15.6	18.4
Old-age and early pensions, gross	6.9	7.0	8.0	8.8	9.7	10.6	11.7	12.8	14.1	15.6	18.4
Total pension expenditure, gross	6.9	7.0	8.0	8.8	9.7	10.6	11.7	12.8	14.1	15.6	18.4
All pensions, assets	39.3	38.7	39.5	39.1	36.8	32.1	24.2	14.7	3.4	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	6.9	7.0	8.0	8.9	10.0	11.1	12.6	14.1	15.8	17.8	21.4
Old-age and early pensions, gross	6.9	7.0	8.0	8.9	10.0	11.1	12.6	14.1	15.8	17.8	21.4
Total pension expenditure, gross	6.9	7.0	8.0	8.9	10.0	11.1	12.6	14.1	15.8	17.8	21.4
All pensions, assets	39.3	38.7	39.5	39.6	37.4	32.1	22.6	10.4	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	6.9	7.0	7.9	8.8	9.8	10.8	12.1	13.4	14.9	16.5	19.7
Old-age and early pensions, gross	6.9	7.0	7.9	8.8	9.8	10.8	12.1	13.4	14.9	16.5	19.7
Total pension expenditure, gross	6.9	7.0	7.9	8.8	9.8	10.8	12.1	13.4	14.9	16.5	19.7
All pensions, assets	39.3	38.7	40.0	40.5	39.0	34.4	26.2	15.7	2.7	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	7.3	7.8	10.0	12.2	15.0	18.4	23.2	28.7	35.1	42.5	54.1
Old-age and early pensions, gross	7.3	7.8	10.0	12.2	15.0	18.4	23.2	28.7	35.1	42.5	54.1
Total pension expenditure, gross	7.3	7.8	10.0	12.2	15.0	18.4	23.2	28.7	35.1	42.5	54.1
All pensions, assets	39.3	39.2	42.1	44.0	42.6	35.0	17.3	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
Old-age and early pensions, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
Total pension expenditure, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
Old-age and early pensions, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
Total pension expenditure, gross	6.9	7.0	8.0	8.8	9.9	10.8	12.2	13.5	15.0	16.7	19.8
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:

: = data not provided

Cyprus

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	2.9	2.9	3.1	3.2	3.3	3.5	3.6	3.7	3.8	3.9	4.0
Constant health scenario	2.9	2.9	3.0	3.1	3.2	3.3	3.3	3.4	3.5	3.6	3.6
Death-related costs scenario	2.9	2.9	3.0	3.2	3.3	3.3	3.4	3.5	3.6	3.7	3.8
Income elasticity of demand	2.9	2.9	3.1	3.3	3.5	3.6	3.8	3.9	4.0	4.1	4.2
Unit costs - GDP per worker	2.9	2.9	2.9	3.0	3.1	3.4	3.5	3.7	3.8	4.0	4.2
AWG reference scenario	2.9	2.9	3.1	3.3	3.4	3.5	3.6	3.8	3.9	4.0	4.0
Long-term care spending as % of GDP											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
Number of dependent people (in thousands)											
Pure ageing scenario	14	15	17	21	25	29	34	38	41	44	47
Unit costs - GDP per capita	14	15	17	21	25	14	34	38	41	44	47
Constant disability scenario	14	15	16	14	19	22	24	26	27	28	29
Increase in formal care	14	15	17	21	25	29	34	38	41	44	47
AWG reference scenario	14	15	16	19	22	25	29	32	34	36	38
of which receiving formal care											
Pure ageing scenario	0	0	0	0	0	0	0	0	0	0	0
Unit costs - GDP per capita	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
Increase in formal care	0	1	5	9	14	16	19	21	23	25	26
AWG reference scenario	0	0	0	0	0	0	0	0	0	0	0
of which receiving informal or no care											
Pure ageing scenario	14	15	17	21	25	29	34	38	41	44	47
Unit costs - GDP per capita	14	15	17	21	25	14	34	38	41	44	47
Constant disability scenario	14	15	16	14	19	22	24	26	27	28	29
Increase in formal care	14	14	13	12	11	13	15	17	18	19	21
AWG reference scenario	14	15	16	19	22	25	29	32	34	36	38
Education spending as % of GDP											
Total	6.3	6.2	5.1	4.3	4.0	4.1	4.3	4.4	4.2	4.0	4.0
of which: Transfers	0.9	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Primary	1.7	1.7	1.3	1.1	1.2	1.2	1.3	1.2	1.1	1.1	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.5	1.5	1.2	0.9	0.9	1.0	1.1	1.1	1.0	0.9	0.9
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.6	1.5	1.4	1.1	0.9	1.0	1.1	1.1	1.1	1.0	1.0
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	1.5	1.5	1.3	1.1	1.0	0.9	0.9	1.0	1.0	1.0	1.0
of which: Transfers	0.9	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Number of students (in thousands)											
Total	145	143	130	117	116	123	129	130	125	119	117
Primary	62	59	49	48	51	56	57	54	50	48	50
Low secondary	33	34	30	25	25	28	30	30	29	27	26
Upper secondary	32	32	32	27	24	26	28	30	29	27	26
Tertiary education	18	18	18	17	15	14	14	15	16	16	15
Memo											
Population aged 15-64 (in thousands)	497	506	549	575	583	585	588	597	606	606	590
Unemployment benefit spending as % of GDP	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Latvia

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.3	1.3	1.4	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Life expectancy at birth											
males	64.9	65.0	65.8	66.8	68.0	69.5	70.9	72.0	72.9	73.6	74.3
females	76.2	76.3	76.9	77.7	78.6	79.5	80.4	81.0	81.6	82.1	82.5
Life expectancy at 65											
males	12.3	12.4	12.8	13.4	14.1	14.9	15.6	16.2	16.7	17.1	17.5
females	16.6	16.7	17.1	17.6	18.2	18.8	19.3	19.8	20.2	20.5	20.7
Net migration (thousand)	-2.1	-2.1	-2.6	-4.1	-0.7	2.5	3.0	3.0	2.9	2.9	2.8
Net migration as % of population	-0.09	-0.09	-0.12	-0.19	-0.03	0.12	0.15	0.15	0.15	0.15	0.15
Population (million)	2.3	2.3	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9
Population aged 0-14 as % of total	15.4	14.8	13.7	15.1	16.2	16.2	15.1	13.8	13.4	14.0	14.8
Prime age population (25-54) as % of total	41.7	41.8	43.0	43.8	43.0	41.1	39.4	38.5	37.3	35.7	35.0
Working age population (15-64) as % of total	68.4	68.6	68.9	67.2	65.5	64.1	63.7	63.9	63.0	61.4	59.1
Elderly population aged 65+ as % of total	16.2	16.5	17.4	17.7	18.4	19.7	21.3	22.3	23.5	24.5	26.1
Very elderly population aged 80 and over as % of total	2.9	3.0	3.9	4.5	5.2	5.4	5.6	6.2	7.2	8.0	8.3
lerly population aged 55+ as % of working age pop.15-64	1.5	1.4	1.4	1.5	1.5	1.6	1.6	1.5	1.6	1.7	1.8
Macroeconomic assumptions											
Real GDP (growth rate)	7.5	8.1	7.4	4.2	2.9	2.4	2.1	1.4	1.2	0.7	0.4
Labour input (growth rate)	1.1	1.5	0.8	-0.6	-1.1	-0.9	-0.6	-0.5	-0.7	-1.1	-1.3
Labour productivity (growth rate)	6.4	6.5	6.5	4.8	4.0	3.3	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	3.0	3.0	3.3	2.2	2.0	1.9	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	3.3	3.5	3.2	2.6	2.0	1.4	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	8.1	8.7	8.0	4.9	3.4	2.9	2.6	1.9	1.6	1.1	0.8
GDP in 2004 prices (in billions of euro)	11	12	17	22	26	30	33	36	39	41	41
GDP per worker	8.4	9.1	13.6	18.2	22.1	25.6	29.2	32.5	35.4	37.6	39.2
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		-0.3	-0.7	-1.3	-1.0	-0.8	-0.4	-0.4	-0.7	-0.9	-1.2
Labour force (thousands)	1112	1121	1168	1157	1097	1043	1005	979	950	907	850
Participation rate (15-64)	70.1	70.8	75.6	79.1	79.2	78.6	78.1	77.4	77.6	77.4	76.8
young (15-24)	39.8	40.4	45.7	48.0	40.9	39.9	40.4	42.0	43.9	44.4	42.5
prime-age (25-54)	87.1	87.8	90.9	92.0	92.8	93.5	93.8	93.6	93.1	92.7	92.9
older (55-64)	48.4	49.8	56.3	61.2	61.6	61.5	63.3	62.9	64.4	63.8	60.5
oldest (65-71)	15.1	16.1	14.6	17.1	17.2	17.6	17.1	17.4	17.6	17.6	18.1
Employment rate (15-64)	63.2	64.4	69.9	73.6	73.7	73.1	72.6	72.0	72.2	71.9	71.4
Employment rate (15-71)	58.5	59.7	64.6	68.6	68.0	66.9	66.0	65.9	65.8	65.3	64.1
Employment growth (15-64)		1.5	0.8	-0.6	-1.1	-0.9	-0.6	-0.5	-0.7	-1.1	-1.3
Unemployment rate (15-64)	9.8	9.1	7.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	11.4	11.5	12.3	14.5	15.9	15.9	16.4	16.9	18.6	20.8	19.6
Old-age dependency ratio (1)	23.6	24.1	25.2	26.3	28.0	30.7	33.4	34.9	37.4	39.9	44.1
Total dependency ratio (2)	46.1	45.7	45.1	48.7	52.7	55.9	57.1	56.5	58.7	62.8	69.1
Total economic dependency ratio	131.3	126.4	107.5	102.1	107.3	113.3	116.4	117.4	119.7	126.2	136.9
Economic old-age dependency ratio (15-64)	35.1	34.9	34.0	33.6	35.6	39.1	42.9	45.5	48.6	52.2	57.8
Economic old-age dependency ratio (15-71)	34.2	34.0	33.3	32.9	34.7	38.0	41.7	44.2	47.1	50.5	55.7

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Latvia

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	6.8	6.4	4.9	4.6	4.9	5.3	5.6	5.9	5.9	5.7	5.6
Old-age and early pensions, gross	5.7	5.7	4.3	4.1	4.3	4.7	4.9	5.2	5.2	5.1	4.9
Of which: earnings-related pensions, gross	5.7	5.7	4.3	4.1	4.3	4.7	4.9	5.2	5.2	5.1	4.9
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	1.1	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.6
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.7	1.1	1.8	2.7
Total pension expenditure, gross	6.8	6.4	4.9	4.6	5.0	5.6	6.0	6.5	7.0	7.5	8.3
Social security pensions, net	6.7	6.3	4.8	4.6	4.8	5.3	5.6	5.8	5.8	5.7	5.5
Total pension expenditure, net	6.7	6.3	4.8	4.6	4.9	5.5	5.9	6.4	6.9	7.3	8.0
Social security pensions, contributions	7.1	7.9	6.1	5.7	5.6	5.5	5.4	5.4	5.4	5.4	5.4
Total pension contributions	7.3	8.2	8.4	8.3	8.3	8.4	8.4	8.4	8.5	8.5	8.5
Social security pensions, assets	:	0.8	5.2	7.8	9.3	8.7	6.5	3.4	0.2	:	:
All pensions, assets	0.3	1.7	12.9	25.9	38.0	48.2	57.4	64.6	68.8	71.4	71.5
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	99	99	99	99	99	99	99	99	99	99	99
Total pension expenditure, net / Total pension exp., gross, %	99	99	99	99	99	99	98	98	98	97	97
Social security pensions, number of pensioners , 1000 pers.	599	592	533	529	544	567	575	583	588	595	611
All pensions, pensioners , 1000 pers.	599	592	533	529	544	567	575	583	588	595	611
Number of pensioners aged 65+ , 1000 pers.	375	386	394	395	400	417	429	434	443	449	467
Share of pensioners below age 65 as % of all pensioners	37.4	34.7	26.1	25.3	26.4	26.5	25.5	25.5	24.6	24.6	23.6
Average gross social sec. pension, 1000€ in 2004 prices	1.2	1.3	1.6	2.0	2.4	2.8	3.3	3.6	3.9	3.9	3.8
Average gross total pensions, 1000€ in 2004 prices	1.2	1.3	1.6	2.0	2.4	2.9	3.5	4.1	4.6	5.1	5.6
Output / Worker, 1000€ in 2004 prices	11.0	11.7	15.9	20.8	25.8	30.8	35.6	39.9	43.9	48.0	52.5
Social sec. benefit ratio	11.4	11.0	9.9	9.4	9.2	9.1	9.1	9.2	8.9	8.1	7.2
Total pension benefit ratio	11.4	11.0	9.9	9.4	9.4	9.5	9.8	10.2	10.6	10.7	10.7
Social security pensions, num of contributors, in 1000	1089	1112	1183	1167	1111	1053	1013	988	963	922	872
Average social sec. pension contribution, 1000€ in 2004 prices	0.7	0.8	0.9	1.1	1.3	1.6	1.8	2.0	2.2	2.4	2.6
Average total pension contribution, 1000€ in 2004 prices	0.7	0.9	1.2	1.6	2.0	2.4	2.8	3.1	3.4	3.7	4.0
Support ratio (contributors /100 pensioners, social sec. pens.)	182	188	222	220	204	186	176	170	164	155	143
High life expectancy; as % of GDP											
Social security pensions, gross	6.8	6.4	4.9	4.7	4.9	5.4	5.7	6.0	6.0	5.9	5.7
Old-age and early pensions, gross	5.7	5.7	4.3	4.1	4.3	4.7	5.0	5.2	5.3	5.2	5.1
Total pension expenditure, gross	6.8	6.4	4.9	4.7	5.0	5.6	6.1	6.6	7.2	7.7	8.4
All pensions, assets	0.3	1.7	12.9	25.9	38.0	48.2	57.3	64.3	68.0	69.9	70.2
Higher labour productivity; as % of GDP											
Social security pensions, gross	6.8	6.4	4.9	4.6	4.8	5.3	5.5	5.8	5.8	5.6	5.4
Old-age and early pensions, gross	5.7	5.7	4.3	4.0	4.2	4.6	4.9	5.1	5.1	4.9	4.8
Total pension expenditure, gross	6.8	6.4	4.9	4.6	4.9	5.5	5.9	6.4	6.9	7.3	8.0
All pensions, assets	0.3	1.7	12.9	25.8	37.8	47.9	56.9	63.9	68.1	70.9	71.4
Lower labour productivity; as % of GDP											
Social security pensions, gross	6.8	6.4	4.9	4.6	4.9	5.4	5.7	6.0	6.0	5.9	5.7
Old-age and early pensions, gross	5.7	5.7	4.3	4.1	4.3	4.8	5.0	5.3	5.3	5.2	5.1
Total pension expenditure, gross	6.8	6.4	4.9	4.6	5.0	5.6	6.1	6.7	7.2	7.8	8.6
All pensions, assets	0.3	1.7	12.9	26.0	38.3	48.7	58.1	65.5	69.7	72.2	72.4
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	6.8	6.4	4.9	4.6	4.9	5.3	5.6	5.8	5.9	5.7	5.6
Old-age and early pensions, gross	5.7	5.7	4.3	4.0	4.3	4.7	4.9	5.2	5.2	5.1	4.9
Total pension expenditure, gross	6.8	6.4	4.9	4.6	5.0	5.5	6.0	6.5	7.0	7.5	8.2
All pensions, assets	0.3	1.7	13.0	26.0	38.1	48.4	57.6	64.8	69.0	71.7	71.8
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	6.8	6.4	4.9	4.6	4.9	5.3	5.6	5.8	5.9	5.7	5.5
Old-age and early pensions, gross	5.7	5.7	4.3	4.0	4.3	4.7	4.9	5.1	5.2	5.0	4.9
Total pension expenditure, gross	6.8	6.4	4.9	4.6	5.0	5.5	6.0	6.5	7.0	7.5	8.2
All pensions, assets	0.3	1.7	12.9	25.9	37.8	47.9	57.0	64.1	68.2	70.6	70.7
Lower interest rate; as % of GDP											
Social security pensions, gross	6.8	6.4	4.9	4.6	4.9	5.3	5.6	5.9	5.9	5.7	5.6
Old-age and early pensions, gross	5.7	5.7	4.3	4.1	4.3	4.7	4.9	5.2	5.2	5.1	4.9
Total pension expenditure, gross	6.8	6.4	4.9	4.6	5.0	5.5	6.0	6.4	6.8	7.2	7.7
All pensions, assets	0.3	1.7	12.7	25.2	36.3	45.3	52.7	57.9	60.4	61.8	61.4
Higher interest rate; as % of GDP											
Social security pensions, gross	6.8	6.4	4.9	4.6	4.9	5.3	5.6	5.9	5.9	5.7	5.6
Old-age and early pensions, gross	5.7	5.7	4.3	4.1	4.3	4.7	4.9	5.2	5.2	5.1	4.9
Total pension expenditure, gross	6.8	6.4	4.9	4.6	5.0	5.6	6.1	6.6	7.3	8.0	9.0
All pensions, assets	0.3	1.7	13.1	26.6	39.8	51.6	62.8	72.3	78.7	82.9	83.5

: = data not provided

Latvia

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.1	5.2	5.3	5.4	5.5	5.5	5.6	5.7	5.8	5.9	5.9
Constant health scenario	5.1	5.2	5.3	5.3	5.3	5.2	5.2	5.2	5.3	5.3	5.3
Death-related costs scenario	5.1	5.2	5.3	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.5
Income elasticity of demand	5.1	5.2	5.6	5.8	6.0	6.0	6.1	6.3	6.4	6.5	6.5
Unit costs - GDP per worker	5.1	5.1	4.8	4.8	4.9	5.1	5.2	5.4	5.5	5.8	6.1
AWG reference scenario	5.1	5.2	5.5	5.8	5.8	5.9	5.9	6.0	6.1	6.2	6.2
Long-term care spending as % of GDP											
Pure ageing scenario	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.8
Unit costs - GDP per capita	0.4	0.4	0.5	0.5	0.6	0.4	0.6	0.7	0.7	0.8	0.8
Constant disability scenario	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6
Increase in formal care	0.4	0.5	0.9	1.3	1.8	1.9	2.0	2.2	2.5	2.8	3.0
AWG reference scenario	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7
Number of dependent people (in thousands)											
Pure ageing scenario	65	66	72	74	76	79	82	86	92	96	99
Unit costs - GDP per capita	65	66	72	74	76	39	82	86	92	96	99
Constant disability scenario	65	65	65	52	61	59	58	58	60	61	61
Increase in formal care	65	66	72	74	76	79	82	86	92	96	99
AWG reference scenario	65	66	68	68	69	69	70	72	76	79	80
of which receiving formal care											
Pure ageing scenario	8	9	9	10	10	11	11	12	12	13	13
Unit costs - GDP per capita	8	9	9	10	10	11	11	12	12	13	13
Constant disability scenario	8	9	9	8	8	8	8	8	8	8	8
Increase in formal care	8	12	26	37	47	49	51	53	57	59	61
AWG reference scenario	8	9	9	9	9	9	9	10	10	11	11
of which receiving informal or no care											
Pure ageing scenario	57	58	62	64	66	68	71	75	80	83	85
Unit costs - GDP per capita	57	58	62	64	66	34	71	75	80	83	85
Constant disability scenario	57	57	57	45	53	51	50	50	52	53	52
Increase in formal care	57	55	46	37	29	30	31	33	35	36	38
AWG reference scenario	57	57	59	59	59	59	60	63	66	68	69
Education spending as % of GDP											
Total	4.9	4.6	3.5	3.0	3.2	3.5	3.7	3.6	3.3	3.3	3.5
of which: Transfers	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Primary	0.9	0.8	0.7	0.8	0.9	0.9	0.9	0.8	0.7	0.8	0.9
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.7	1.6	1.0	0.9	1.1	1.2	1.3	1.2	1.1	1.0	1.2
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.3	1.3	1.0	0.6	0.7	0.8	0.9	0.9	0.8	0.8	0.8
of which: Transfers	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Tertiary education	1.0	0.9	0.8	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.7
of which: Transfers	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Number of students (in thousands)											
Total	487	468	379	331	329	343	345	325	297	280	280
Primary	93	85	80	87	95	97	88	75	69	72	77
Low secondary	168	157	100	96	105	115	117	106	91	84	88
Upper secondary	107	107	87	57	56	62	68	69	61	53	50
Tertiary education	119	118	112	91	73	69	71	75	76	71	64
Memo											
Population aged 15-64 (in thousands)	1587	1582	1544	1462	1385	1326	1287	1264	1224	1173	1108
Unemployment benefit spending as % of GDP	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Lithuania

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.3	1.3	1.3	1.4	1.4	1.5	1.6	1.6	1.6	1.6	1.6
Life expectancy at birth											
males	66.5	66.7	67.4	68.4	69.6	71.0	72.3	73.4	74.3	74.9	75.5
females	77.6	77.7	78.5	79.3	80.1	81.0	81.8	82.4	82.9	83.4	83.7
Life expectancy at 65											
males	13.3	13.3	13.5	14.0	14.6	15.4	16.1	16.7	17.1	17.5	17.9
females	17.4	17.5	17.9	18.4	19.0	19.6	20.1	20.5	20.9	21.2	21.5
Net migration (thousand)	-5.6	-5.6	-6.0	-6.4	-1.2	3.8	4.6	4.6	4.5	4.4	4.3
Net migration as % of population	-0.16	-0.16	-0.18	-0.20	-0.04	0.12	0.15	0.15	0.15	0.15	0.15
Population (million)	3.4	3.4	3.3	3.3	3.2	3.1	3.1	3.0	3.0	2.9	2.9
Population aged 0-14 as % of total	17.7	17.1	14.9	14.5	15.0	15.1	14.7	13.9	13.4	13.3	13.7
Prime age population (25-54) as % of total	41.8	41.9	43.1	43.8	43.2	42.0	40.4	39.4	37.9	36.0	34.6
Working age population (15-64) as % of total	67.3	67.6	69.0	68.9	67.5	65.7	63.9	63.1	62.2	61.4	59.6
Elderly population aged 65+ as % of total	15.0	15.2	16.1	16.7	17.5	19.2	21.4	23.0	24.4	25.3	26.7
Very elderly population aged 80 and over as % of total	2.8	3.0	3.8	4.5	5.0	5.2	5.5	6.1	7.2	8.6	9.2
lerly population aged 55+ as % of working age pop.15-64	2.2	2.2	2.0	2.0	2.2	2.3	2.4	2.4	2.5	2.6	2.7
Macroeconomic assumptions											
Real GDP (growth rate)	6.3	6.7	6.1	4.2	3.0	2.2	1.9	1.3	1.3	0.9	0.4
Labour input (growth rate)	0.1	0.4	1.1	0.2	-0.6	-0.9	-0.8	-0.7	-0.6	-0.9	-1.3
Labour productivity (growth rate)	6.1	6.3	5.1	4.0	3.6	3.2	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	3.1	3.1	2.8	2.0	1.9	1.8	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	3.0	3.2	2.3	2.0	1.7	1.3	1.0	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	6.8	7.2	6.7	4.8	3.4	2.5	2.2	1.6	1.7	1.3	0.9
GDP in 2004 prices (in billions of euro)	18	19	26	33	40	45	50	53	57	60	62
GDP per worker	8.8	9.4	13.2	17.3	21.0	24.1	27.0	29.6	32.1	34.5	36.3
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.0	-0.2	-0.8	-0.8	-0.9	-0.7	-0.6	-0.5	-0.7	-1.2
Labour force (thousands)	1638	1652	1705	1721	1695	1626	1554	1499	1454	1401	1324
Participation rate (15-64)	70.6	71.2	73.8	76.7	78.9	79.0	78.6	78.1	78.0	77.6	77.1
young (15-24)	30.3	30.2	33.0	35.0	33.6	31.4	30.9	31.3	32.3	33.0	32.7
prime-age (25-54)	89.8	90.7	92.3	92.8	93.3	93.8	94.1	94.0	93.8	93.5	93.4
older (55-64)	52.3	53.3	57.5	62.7	68.3	67.9	68.9	68.6	70.6	70.3	68.4
oldest (65-71)	7.5	7.7	9.2	9.5	10.3	11.4	10.7	10.7	10.6	10.9	11.4
Employment rate (15-64)	62.2	63.3	67.3	71.3	73.4	73.4	73.1	72.6	72.6	72.2	71.7
Employment rate (15-71)	57.3	58.3	62.3	66.3	67.5	66.8	65.4	65.2	65.1	65.0	63.7
Employment growth (15-64)		1.7	1.1	0.2	-0.6	-0.9	-0.8	-0.7	-0.6	-0.9	-1.3
Unemployment rate (15-64)	11.9	11.2	8.9	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	11.2	11.4	12.0	14.4	17.6	18.1	18.1	17.9	19.6	22.2	22.7
Old-age dependency ratio (1)	22.3	22.5	23.4	24.2	26.0	29.2	33.4	36.5	39.3	41.2	44.9
Total dependency ratio (2)	48.6	47.8	44.9	45.2	48.2	52.2	56.5	58.6	60.7	62.9	67.8
Total economic dependency ratio	138.9	133.7	115.3	103.6	101.9	107.3	114.0	118.4	121.4	125.7	134.1
Economic old-age dependency ratio (15-64)	34.8	34.5	33.5	32.8	34.0	37.9	43.7	48.3	52.1	55.1	60.2
Economic old-age dependency ratio (15-71)	34.4	34.1	33.1	32.4	33.5	37.2	42.8	47.3	51.1	54.0	58.7

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Lithuania

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	6.7	6.7	6.6	6.6	7.0	7.6	7.9	8.1	8.2	8.3	8.6
Old-age and early pensions, gross	5.7	5.7	5.6	5.6	6.0	6.5	6.8	6.9	7.0	7.1	7.3
Of which: earnings-related pensions, gross	5.4	5.3	5.3	5.4	5.8	6.3	6.7	6.8	6.9	7.0	7.2
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.7	1.0	1.4	1.8
Total pension expenditure, gross	6.7	6.7	6.6	6.6	7.1	7.8	8.3	8.8	9.2	9.7	10.4
Social security pensions, net	6.7	6.7	6.6	6.6	7.0	7.6	7.9	8.1	8.2	8.3	8.6
Total pension expenditure, net	6.7	6.7	6.6	6.6	7.1	7.8	8.3	8.8	9.2	9.7	10.4
Social security pensions, contributions	6.8	6.7	6.3	6.2	6.1	5.9	6.0	6.0	6.1	6.1	6.1
Total pension contributions	7.1	7.1	7.2	7.3	7.3	7.4	7.5	7.6	7.7	7.7	7.7
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	0.3	0.7	4.3	8.6	14.0	20.7	27.9	35.0	41.5	47.2	52.7
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	100	100	100	100	100	100	100	100	100	100	100
Total pension expenditure, net / Total pension exp., gross, %	100	100	100	100	100	100	100	100	100	100	100
Social security pensions, number of pensioners , 1000 pers.	1248	1260	1292	1295	1314	1335	1357	1376	1388	1398	1402
All pensions, pensioners , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Number of pensioners aged 65+ , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:	:	:	:
Average gross social sec. pension, 1000€ in 2004 prices	1.0	1.0	1.3	1.7	2.1	2.5	2.9	3.1	3.4	3.6	3.8
Average gross total pensions, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Output / Worker, 1000€ in 2004 prices	12.6	13.4	16.8	20.9	25.2	29.7	34.3	38.3	42.2	46.2	50.4
Social sec. benefit ratio	7.7	7.6	7.9	8.1	8.4	8.6	8.4	8.2	8.0	7.7	7.5
Total pension benefit ratio	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, num of contributors, in 1000	1350	1371	1442	1464	1416	1339	1284	1246	1216	1171	1112
Average social sec. pension contribution, 1000€ in 2004 prices	0.9	0.9	1.1	1.4	1.7	2.0	2.3	2.6	2.9	3.1	3.4
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	108	109	112	113	108	100	95	91	88	84	79
High life expectancy; as % of GDP											
Social security pensions, gross	7.2	6.8	6.8	6.9	7.4	8.0	8.5	8.7	8.9	9.1	9.5
Old-age and early pensions, gross	6.0	5.7	5.6	5.7	6.1	6.7	7.0	7.2	7.3	7.5	7.7
Total pension expenditure, gross	7.2	6.8	6.8	6.9	7.5	8.2	8.8	9.3	9.8	10.5	11.3
All pensions, assets	0.3	0.7	4.3	8.7	14.2	21.1	28.5	35.7	42.5	48.5	54.2
Higher labour productivity; as % of GDP											
Social security pensions, gross	7.0	6.7	6.6	6.6	7.0	7.6	7.9	8.0	8.1	8.3	8.5
Old-age and early pensions, gross	5.7	5.7	5.6	5.6	6.0	6.5	6.8	6.9	7.0	7.1	7.3
Total pension expenditure, gross	7.0	6.7	6.6	6.6	7.1	7.8	8.3	8.7	9.1	9.6	10.3
All pensions, assets	0.3	0.7	4.3	8.6	14.0	20.8	28.1	35.1	41.6	47.5	53.0
Lower labour productivity; as % of GDP											
Social security pensions, gross	7.0	6.7	6.6	6.6	7.0	7.6	8.0	8.1	8.3	8.4	8.7
Old-age and early pensions, gross	5.7	5.7	5.6	5.6	6.0	6.5	6.9	7.0	7.1	7.2	7.5
Total pension expenditure, gross	7.0	6.7	6.6	6.6	7.1	7.8	8.4	8.8	9.3	9.8	10.6
All pensions, assets	0.3	0.7	4.3	8.6	14.0	20.8	28.0	35.0	41.5	47.4	53.0
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	7.0	6.7	6.6	6.6	7.0	7.6	7.9	8.1	8.2	8.3	8.6
Old-age and early pensions, gross	5.7	5.7	5.6	5.6	6.0	6.5	6.8	6.9	7.0	7.1	7.4
Total pension expenditure, gross	7.0	6.7	6.6	6.6	7.1	7.8	8.3	8.8	9.2	9.7	10.4
All pensions, assets	0.3	0.7	4.3	8.6	14.0	20.8	28.1	35.1	41.6	47.4	52.9
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	7.0	6.7	6.6	6.5	7.0	7.5	7.9	8.0	8.1	8.2	8.5
Old-age and early pensions, gross	5.7	5.7	5.6	5.6	6.0	6.5	6.8	6.9	7.0	7.1	7.3
Total pension expenditure, gross	7.0	6.7	6.6	6.6	7.1	7.8	8.3	8.8	9.2	9.7	10.2
All pensions, assets	0.3	0.7	4.3	8.6	14.0	20.7	27.9	34.9	41.4	47.1	52.5
Lower interest rate; as % of GDP											
Social security pensions, gross	6.7	6.7	6.6	6.6	7.0	7.6	7.9	8.1	8.2	8.3	8.6
Old-age and early pensions, gross	5.7	5.7	5.6	5.6	6.0	6.5	6.8	6.9	7.0	7.1	7.3
Total pension expenditure, gross	6.7	6.7	6.6	6.6	7.1	7.7	8.2	8.6	9.0	9.4	10.0
All pensions, assets	0.3	0.7	4.2	8.3	13.2	19.2	25.4	31.3	36.6	41.3	45.6
Higher interest rate; as % of GDP											
Social security pensions, gross	6.7	6.7	6.6	6.6	7.0	7.6	7.9	8.1	8.2	8.3	8.6
Old-age and early pensions, gross	5.7	5.7	5.6	5.6	6.0	6.5	6.8	6.9	7.0	7.1	7.3
Total pension expenditure, gross	6.7	6.7	6.6	6.6	7.1	7.8	8.4	8.9	9.4	10.1	10.9
All pensions, assets	0.3	0.7	4.4	9.0	14.9	22.4	30.8	39.2	47.1	54.3	61.1

: = data not provided

Lithuania

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	3.7	3.7	3.8	4.0	4.0	4.1	4.1	4.2	4.3	4.3	4.4
Constant health scenario	3.7	3.7	3.8	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0
Death-related costs scenario	3.7	3.7	3.8	3.9	4.0	4.0	4.0	4.0	4.1	4.1	4.1
Income elasticity of demand	3.7	3.7	4.0	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.8
Unit costs - GDP per worker	3.7	3.7	3.5	3.4	3.5	3.6	3.8	3.9	4.1	4.2	4.4
AWG reference scenario	3.7	3.7	4.0	4.2	4.3	4.3	4.4	4.4	4.5	4.6	4.6
Long-term care spending as % of GDP											
Pure ageing scenario	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.9	1.0
Unit costs - GDP per capita	0.5	0.6	0.6	0.7	0.7	0.5	0.7	0.8	0.8	0.9	1.0
Constant disability scenario	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8
Increase in formal care	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.4	1.5
AWG reference scenario	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.9
Number of dependent people (in thousands)											
Pure ageing scenario	103	105	115	121	125	131	141	154	167	178	184
Unit costs - GDP per capita	103	105	115	121	125	65	141	154	167	178	184
Constant disability scenario	103	103	105	85	100	98	100	103	109	114	114
Increase in formal care	103	105	115	121	125	131	141	154	167	178	184
AWG reference scenario	103	104	110	112	112	115	120	128	138	146	149
of which receiving formal care											
Pure ageing scenario	29	30	33	35	36	38	41	44	49	52	54
Unit costs - GDP per capita	29	30	33	35	36	38	41	44	49	52	54
Constant disability scenario	29	29	30	30	29	29	29	30	33	34	35
Increase in formal care	29	33	55	72	86	90	97	106	115	122	127
AWG reference scenario	29	29	32	32	33	33	35	37	41	43	44
of which receiving informal or no care											
Pure ageing scenario	74	76	82	86	89	93	101	109	119	125	129
Unit costs - GDP per capita	74	76	82	86	89	45	101	109	119	125	129
Constant disability scenario	74	74	75	60	71	69	70	73	77	80	80
Increase in formal care	74	72	60	49	39	41	44	48	52	55	57
AWG reference scenario	74	75	79	79	80	81	86	91	98	102	105
Education spending as % of GDP											
Total	5.0	4.9	4.2	3.5	3.2	3.2	3.3	3.4	3.3	3.3	3.3
of which: Transfers	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Primary	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
of which: Transfers	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.8	1.8	1.3	1.1	1.0	1.1	1.2	1.2	1.1	1.1	1.1
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Upper secondary	0.7	0.7	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	1.5	1.5	1.5	1.3	1.1	1.0	1.0	1.1	1.1	1.1	1.1
of which: Transfers	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Number of students (in thousands)											
Total	792	777	678	581	528	518	519	508	482	455	440
Primary	170	161	134	127	131	134	130	119	109	107	108
Low secondary	330	320	249	205	192	198	203	198	183	169	164
Upper secondary	121	121	114	86	70	69	71	73	71	65	61
Tertiary education	172	176	182	163	136	117	115	117	119	115	107
Memo											
Population aged 15-64 (in thousands)	2319	2320	2308	2243	2148	2059	1976	1920	1863	1805	1717
Unemployment benefit spending as % of GDP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Luxembourg

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Life expectancy at birth											
males	75.0	75.2	76.4	77.5	78.4	79.3	79.9	80.5	81.0	81.4	81.8
females	81.4	81.5	82.4	83.2	83.9	84.6	85.1	85.6	86.0	86.4	86.7
Life expectancy at 65											
males	15.7	15.9	16.5	17.1	17.7	18.2	18.7	19.0	19.4	19.7	19.9
females	19.6	19.8	20.3	20.9	21.4	21.9	22.3	22.6	22.9	23.2	23.4
Net migration (thousand)	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Net migration as % of population	0.63	0.64	0.59	0.57	0.54	0.51	0.49	0.47	0.46	0.44	0.43
Population (million)	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Population aged 0-14 as % of total	18.8	18.7	17.9	17.2	17.0	17.1	17.3	17.3	17.0	16.7	16.6
Prime age population (25-54) as % of total	45.5	45.3	44.2	42.8	41.3	39.8	38.9	38.6	38.5	38.4	38.2
Working age population (15-64) as % of total	67.1	67.1	67.5	67.4	66.6	64.9	62.8	61.2	60.7	61.0	61.3
Elderly population aged 65+ as % of total	14.1	14.2	14.6	15.4	16.5	18.0	19.8	21.5	22.3	22.3	22.1
Very elderly population aged 80 and over as % of total	3.1	3.2	3.9	4.2	4.4	4.6	5.1	5.8	6.7	7.6	8.3
lerly population aged 55+ as % of working age pop.15-64	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Macroeconomic assumptions											
Real GDP (growth rate)	4.0	4.0	3.9	3.1	2.7	2.9	3.0	3.0	3.0	3.0	3.0
Labour input (growth rate)	2.9	2.6	1.6	1.0	0.8	1.1	1.3	1.3	1.3	1.3	1.3
Labour productivity (growth rate)	1.1	1.4	2.3	2.1	1.9	1.8	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	0.5	0.6	1.1	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	0.8	1.2	1.0	0.8	0.7	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	3.2	3.0	2.9	2.2	1.8	2.0	2.1	2.3	2.4	2.4	2.5
GDP in 2004 prices (in billions of euro)	26	27	32	38	44	51	58	68	78	91	105
GDP per worker	39.3	40.4	47.0	53.0	58.2	64.2	71.1	79.4	89.1	100.3	113.2
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		1.0	1.1	0.8	0.5	0.3	0.1	0.3	0.6	0.7	0.6
Labour force (thousands)	199	202	217	228	236	239	242	247	254	262	269
Participation rate (15-64)	65.5	66.0	67.2	67.8	67.9	67.8	67.9	68.4	68.6	68.5	68.3
young (15-24)	28.2	27.6	28.0	28.9	29.6	29.5	28.9	28.5	28.5	28.8	29.1
prime-age (25-54)	82.4	83.2	86.0	87.2	87.7	88.1	88.3	88.2	88.2	88.2	88.1
older (55-64)	31.7	32.9	35.7	39.5	41.1	40.5	39.7	40.4	41.6	42.1	42.2
oldest (65-71)	3.2	2.9	2.8	3.1	3.2	3.3	3.3	3.3	3.3	3.3	3.3
Employment rate (15-64)	63.0	63.3	64.4	64.9	65.1	64.9	65.0	65.5	65.7	65.6	65.4
Employment rate (15-71)	58.4	58.7	59.6	59.8	59.3	58.6	58.0	58.0	58.7	59.4	59.3
Employment growth (15-64)		1.5	1.3	0.9	0.5	0.2	0.2	0.5	0.6	0.6	0.5
Unemployment rate (15-64)	3.8	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Dependency ratios:											
Share of older workers	7.3	7.6	8.8	10.5	11.9	12.5	11.9	11.0	10.8	11.1	11.6
Old-age dependency ratio (1)	21.0	21.2	21.6	22.8	24.7	27.7	31.6	35.1	36.7	36.6	36.1
Total dependency ratio (2)	49.0	49.0	48.1	48.3	50.2	54.1	59.1	63.3	64.7	64.0	63.3
Total economic dependency ratio	136.5	135.2	130.0	128.4	130.9	137.3	144.8	149.4	150.5	149.8	149.5
Economic old-age dependency ratio (15-64)	32.9	33.0	33.1	34.7	37.5	42.1	47.9	53.0	55.3	55.2	54.7
Economic old-age dependency ratio (15-71)	32.8	32.9	33.0	34.5	37.3	41.8	47.6	52.6	54.9	54.9	54.4

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

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EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	10.0	10.0	9.8	10.9	11.9	13.7	15.0	16.4	17.0	17.7	17.4
Old-age and early pensions, gross	6.1	6.1	6.1	7.0	8.1	9.8	11.3	12.7	13.4	14.0	13.9
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	4.5	4.5	4.6	5.4	6.4	8.1	9.7	11.1	11.8	12.6	12.5
Public sector employees, gross	1.6	1.6	1.5	1.6	1.7	1.7	1.6	1.6	1.5	1.5	1.4
Other pensions (disability, survivors), gross	3.9	3.9	3.7	3.9	3.9	3.9	3.7	3.7	3.6	3.6	3.5
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	10.0	10.0	9.8	10.9	11.9	13.7	15.0	16.4	17.0	17.7	17.4
Social security pensions, net	9.0	9.0	8.9	9.8	10.8	12.4	13.6	14.9	15.5	16.1	15.9
Total pension expenditure, net	9.0	9.0	8.9	9.8	10.8	12.4	13.6	14.9	15.5	16.1	15.9
Social security pensions, contributions	9.9	9.9	10.0	10.1	10.1	10.1	10.0	10.0	10.0	10.0	10.0
Total pension contributions	9.9	9.9	10.0	10.1	10.1	10.1	10.0	10.0	10.0	10.0	10.0
Social security pensions, assets	23.6	24.8	31.7	37.4	39.2	32.9	17.8	:	:	:	:
All pensions, assets	23.6	24.8	31.7	37.4	39.2	32.9	17.8	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	90	90	90	90	91	91	91	91	91	91	92
Total pension expenditure, net / Total pension exp., gross, %	90	90	90	90	91	91	91	91	91	91	92
Social security pensions, number of pensioners , 1000 pers.	128	130	142	158	178	204	235	265	293	315	335
All pensions, pensioners , 1000 pers.	128	130	142	158	178	204	235	265	293	315	335
Number of pensioners aged 65+ , 1000 pers.	88	90	96	104	116	132	156	187	216	237	253
Share of pensioners below age 65 as % of all pensioners	31.1	30.9	32.7	34.1	34.8	35.2	33.5	29.6	26.2	24.8	24.4
Average gross social sec. pension, 1000€ in 2004 prices	20.1	20.6	22.4	26.2	29.4	33.9	37.2	41.8	45.5	50.9	54.8
Average gross total pensions, 1000€ in 2004 prices	20.1	20.6	22.4	26.2	29.4	33.9	37.2	41.8	45.5	50.9	54.8
Output / Worker, 1000€ in 2004 prices	85.3	86.5	95.6	106.4	117.5	128.6	140.0	152.2	165.5	179.9	195.6
Social sec. benefit ratio	23.5	23.8	23.4	24.7	25.0	26.4	26.6	27.5	27.5	28.3	28.0
Total pension benefit ratio	23.5	23.8	23.4	24.7	25.0	26.4	26.6	27.5	27.5	28.3	28.0
Social security pensions, num of contributors, in 1000	307	314	344	364	378	398	421	448	477	508	541
Average social sec. pension contribution, 1000€ in 2004 prices	8.3	8.4	9.4	10.6	11.8	12.8	13.9	15.0	16.4	17.9	19.5
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	240	242	242	230	212	195	179	169	163	161	162
High life expectancy; as % of GDP											
Social security pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Old-age and early pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	10.0	10.0	9.8	10.8	11.8	13.6	14.9	16.3	16.9	17.6	17.3
Old-age and early pensions, gross	6.1	6.1	6.1	7.0	8.0	9.8	11.2	12.7	13.3	14.0	13.8
Total pension expenditure, gross	10.0	10.0	9.8	10.8	11.8	13.6	14.9	16.3	16.9	17.6	17.3
All pensions, assets	23.6	24.8	31.6	37.2	38.9	32.4	17.4	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	10.0	10.0	9.8	10.9	12.0	13.8	15.1	16.5	17.1	17.7	17.5
Old-age and early pensions, gross	6.1	6.1	6.1	7.0	8.1	9.9	11.4	12.8	13.4	14.1	14.0
Total pension expenditure, gross	10.0	10.0	9.8	10.9	12.0	13.8	15.1	16.5	17.1	17.7	17.5
All pensions, assets	23.6	24.8	31.7	37.6	39.6	33.4	18.3	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Old-age and early pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Old-age and early pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	10.0	10.0	9.8	10.9	11.9	13.7	15.0	16.4	17.0	17.7	17.4
Old-age and early pensions, gross	6.1	6.1	6.1	7.0	8.1	9.8	11.3	12.7	13.4	14.0	13.9
Total pension expenditure, gross	10.0	10.0	9.8	10.9	11.9	13.7	15.0	16.4	17.0	17.7	17.4
All pensions, assets	23.6	24.6	30.2	34.4	34.5	26.6	10.5	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	10.0	10.0	9.8	10.9	11.9	13.7	15.0	16.4	17.0	17.7	17.4
Old-age and early pensions, gross	6.1	6.1	6.1	7.0	8.1	9.8	11.3	12.7	13.4	14.0	13.9
Total pension expenditure, gross	10.0	10.0	9.8	10.9	11.9	13.7	15.0	16.4	17.0	17.7	17.4
All pensions, assets	23.6	25.1	33.2	40.7	44.6	40.5	27.2	4.9	:	:	:

: = data not provided

Luxembourg

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.1	5.1	5.2	5.4	5.5	5.7	5.8	5.9	6.1	6.1	6.2
Constant health scenario	5.1	5.1	5.1	5.2	5.2	5.3	5.4	5.5	5.6	5.6	5.6
Death-related costs scenario	5.1	5.1	5.2	5.3	5.4	5.5	5.7	5.8	5.9	5.9	6.0
Income elasticity of demand	5.1	5.1	5.4	5.6	5.8	6.0	6.2	6.4	6.5	6.6	6.7
Unit costs - GDP per worker	5.1	5.0	4.9	5.0	5.1	5.2	5.2	5.2	5.2	5.1	4.9
AWG reference scenario	5.1	5.1	5.3	5.4	5.6	5.7	5.9	6.1	6.2	6.3	6.3
Long-term care spending as % of GDP											
Pure ageing scenario	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.5	1.6	1.7
Unit costs - GDP per capita	0.9	0.9	1.0	1.1	1.2	0.8	1.3	1.5	1.7	2.0	2.1
Constant disability scenario	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.2	1.3
Increase in formal care	0.9	0.9	1.1	1.2	1.4	1.4	1.5	1.7	1.8	2.0	2.1
AWG reference scenario	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.2	1.3	1.4	1.5
Number of dependent people (in thousands)											
Pure ageing scenario	13	13	15	17	18	20	24	27	31	34	35
Unit costs - GDP per capita	13	13	15	17	18	11	24	27	31	34	35
Constant disability scenario	13	13	14	12	15	15	17	19	20	22	23
Increase in formal care	13	13	15	17	18	20	24	27	31	34	35
AWG reference scenario	13	13	14	15	17	18	20	23	26	28	29
of which receiving formal care											
Pure ageing scenario	7	8	9	10	11	12	14	16	18	20	22
Unit costs - GDP per capita	7	8	9	10	11	12	14	16	18	20	22
Constant disability scenario	7	7	8	9	9	9	10	11	13	14	15
Increase in formal care	7	8	10	13	15	17	19	22	25	28	29
AWG reference scenario	7	8	8	9	10	11	12	14	15	17	18
of which receiving informal or no care											
Pure ageing scenario	6	6	6	7	8	9	10	11	12	13	14
Unit costs - GDP per capita	6	6	6	7	8	4	10	11	12	13	14
Constant disability scenario	6	6	6	5	6	6	7	7	8	8	8
Increase in formal care	6	5	5	4	3	4	4	5	5	6	6
AWG reference scenario	6	6	6	6	7	7	8	9	10	11	11
Education spending as % of GDP											
Total	3.3	3.2	3.1	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.4
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Primary	1.4	1.4	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.0	1.0
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of students (in thousands)											
Total	69	70	73	74	73	76	80	84	87	88	89
Primary	34	35	35	34	35	37	39	41	41	42	42
Low secondary	17	17	18	18	18	18	19	20	21	22	22
Upper secondary	18	18	20	21	21	21	22	23	24	25	25
Tertiary education	0	0	0	0	0	0	0	0	0	0	0
Memo											
Population aged 15-64 (in thousands)	303	306	322	336	347	353	357	361	369	382	394
Unemployment benefit spending as % of GDP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2

Hungary

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.3	1.3	1.3	1.4	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Life expectancy at birth											
males	68.5	68.8	70.1	71.5	72.8	74.1	75.2	76.2	77.0	77.6	78.1
females	76.8	77.0	78.0	78.9	79.8	80.7	81.5	82.1	82.6	83.1	83.4
Life expectancy at 65											
males	13.1	13.2	13.9	14.6	15.4	16.1	16.8	17.4	17.9	18.3	18.6
females	16.7	16.8	17.3	17.9	18.5	19.1	19.7	20.1	20.5	20.8	21.1
Net migration (thousand)	14.8	14.7	13.3	7.1	13.8	20.4	21.2	21.1	20.8	20.4	20.1
Net migration as % of population	0.15	0.15	0.13	0.07	0.14	0.21	0.22	0.22	0.22	0.23	0.22
Population (million)	10.1	10.1	10.0	9.8	9.7	9.6	9.5	9.4	9.2	9.1	8.9
Population aged 0-14 as % of total	15.9	15.7	14.6	14.4	14.4	14.3	14.1	13.8	13.6	13.6	13.8
Prime age population (25-54) as % of total	43.5	43.6	42.7	42.1	42.6	41.6	39.7	37.1	36.1	35.4	34.9
Working age population (15-64) as % of total	68.6	68.7	68.6	67.5	65.2	63.7	63.6	62.9	61.6	59.2	58.1
Elderly population aged 65+ as % of total	15.5	15.6	16.7	18.0	20.3	22.0	22.3	23.2	24.8	27.2	28.1
Very elderly population aged 80 and over as % of total	3.2	3.3	3.9	4.3	4.7	5.4	6.2	7.6	8.3	8.1	8.5
lerly population aged 55+ as % of working age pop.15-64	6.4	6.4	6.5	6.8	7.0	7.3	7.5	7.8	8.0	8.3	8.5
Macroeconomic assumptions											
Real GDP (growth rate)	3.9	3.8	3.3	2.8	2.5	2.4	2.1	1.0	0.8	1.0	1.1
Labour input (growth rate)	0.6	0.5	0.2	-0.3	-0.5	-0.3	-0.6	-1.0	-1.1	-0.8	-0.6
Labour productivity (growth rate)	3.2	3.3	3.1	3.1	2.9	2.8	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	1.1	1.1	1.2	1.6	1.6	1.7	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	2.1	2.1	1.9	1.6	1.3	1.1	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	4.1	4.0	3.6	3.1	2.7	2.6	2.3	1.3	1.1	1.4	1.5
GDP in 2004 prices (in billions of euro)	80	83	99	115	131	148	165	178	185	194	205
GDP per worker	10.9	11.3	13.7	16.1	18.6	21.2	23.9	26.0	27.6	29.3	31.5
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		-0.1	-0.4	-0.9	-1.2	-0.4	-0.2	-0.6	-1.1	-1.0	-0.6
Labour force (thousands)	4245	4276	4373	4350	4269	4188	4089	3924	3723	3554	3440
Participation rate (15-64)	61.1	61.6	63.8	65.5	67.5	68.5	67.8	66.6	65.6	66.2	66.4
young (15-24)	31.1	31.0	31.7	33.3	31.9	31.1	31.4	31.4	31.5	31.9	31.7
prime-age (25-54)	78.4	78.8	80.7	82.2	82.7	82.9	82.8	82.5	82.5	82.4	82.5
older (55-64)	31.3	32.8	40.2	41.4	44.6	50.4	51.7	52.0	48.6	49.7	50.1
oldest (65-71)	2.5	3.0	5.9	7.8	8.2	8.0	8.8	9.8	9.8	9.4	8.9
Employment rate (15-64)	57.7	58.4	60.8	62.4	64.3	65.3	64.6	63.5	62.4	63.1	63.2
Employment rate (15-71)	53.0	53.6	55.7	56.9	57.5	58.2	58.8	57.5	55.6	54.9	55.6
Employment growth (15-64)		1.0	0.2	-0.3	-0.5	-0.3	-0.6	-1.0	-1.1	-0.8	-0.6
Unemployment rate (15-64)	5.5	5.3	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Dependency ratios:											
Share of older workers	8.7	9.3	12.4	13.2	12.6	13.8	16.2	19.1	18.2	17.2	17.2
Old-age dependency ratio (1)	22.6	22.8	24.3	26.7	31.2	34.5	35.1	36.9	40.3	45.9	48.3
Total dependency ratio (2)	45.7	45.5	45.7	48.1	53.3	56.9	57.4	59.0	62.4	69.0	72.0
Total economic dependency ratio	152.3	149.3	139.7	137.4	138.4	140.4	143.5	150.5	160.1	168.1	172.1
Economic old-age dependency ratio (15-64)	38.7	38.5	39.1	41.4	46.7	51.1	52.8	56.3	62.2	70.2	74.2
Economic old-age dependency ratio (15-71)	38.5	38.3	38.7	40.8	45.9	50.2	52.0	55.2	60.7	68.4	72.5

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Hungary

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	10.4	10.7	11.1	11.6	12.5	13.0	13.5	14.6	16.0	16.9	17.1
Old-age and early pensions, gross	8.3	8.6	9.1	10.0	11.3	11.8	12.2	13.2	14.7	15.6	15.8
Of which: earnings-related pensions, gross	8.3	8.6	9.1	10.0	11.3	11.8	12.2	13.2	14.7	15.6	15.8
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	2.1	2.0	2.1	1.6	1.3	1.2	1.3	1.4	1.3	1.3	1.3
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.9	1.6	2.4	3.1
Total pension expenditure, gross	10.4	10.7	11.1	11.6	12.6	13.3	13.9	15.4	17.6	19.3	20.3
Social security pensions, net	10.4	10.7	11.1	11.2	11.7	11.8	11.9	12.6	13.8	14.5	14.6
Total pension expenditure, net	10.4	10.7	11.1	11.2	11.8	12.0	12.3	13.4	15.1	16.5	17.3
Social security pensions, contributions	7.7	7.6	6.8	6.6	6.6	6.5	6.6	6.7	6.7	6.8	6.8
Total pension contributions	8.8	8.9	8.8	8.9	9.0	9.2	9.3	9.5	9.5	9.6	9.6
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	4.0	5.3	13.2	21.9	31.5	41.1	50.0	59.2	67.7	72.8	73.7
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	100	100	100	97	93	90	88	87	86	85	85
Total pension expenditure, net / Total pension exp., gross, %	100	100	100	97	93	90	88	87	86	85	85
Social security pensions, number of pensioners , 1000 pers.	3069	3080	3210	3262	3343	3353	3353	3417	3529	3541	3467
All pensions, pensioners , 1000 pers.	3069	3080	3210	3262	3343	3353	3353	3417	3529	3541	3467
Number of pensioners aged 65+ , 1000 pers.	1557	1580	1765	2008	2252	2386	2364	2378	2450	2614	2614
Share of pensioners below age 65 as % of all pensioners	49.3	48.7	45.0	38.4	32.7	28.9	29.5	30.4	30.6	26.2	24.6
Average gross social sec. pension, 1000€ in 2004 prices	2.7	2.9	3.4	4.1	4.9	5.8	6.6	7.6	8.4	9.3	10.1
Average gross total pensions, 1000€ in 2004 prices	2.7	2.9	3.4	4.1	5.0	5.9	6.9	8.0	9.3	10.6	12.0
Output / Worker, 1000€ in 2004 prices	20.3	21.0	23.9	27.8	32.2	37.1	42.4	47.5	52.3	57.3	62.5
Social sec. benefit ratio	13.4	13.8	14.4	14.7	15.3	15.5	15.6	15.9	16.1	16.2	16.2
Total pension benefit ratio	13.4	13.8	14.4	14.7	15.4	15.8	16.2	16.9	17.7	18.4	19.1
Social security pensions, num of contributors, in 1000	4026	4070	4206	4201	4137	4057	3956	3810	3629	3475	3351
Average social sec. pension contribution, 1000€ in 2004 prices	1.5	1.6	1.6	1.8	2.1	2.4	2.8	3.1	3.4	3.8	4.1
Average total pension contribution, 1000€ in 2004 prices	1.7	1.8	2.1	2.4	2.9	3.3	3.9	4.4	4.9	5.4	5.8
Support ratio (contributors /100 pensioners, social sec. pens.)	131	132	131	129	124	121	118	111	103	98	97
High life expectancy; as % of GDP											
Social security pensions, gross	10.4	10.7	11.0	11.4	12.4	12.8	13.2	14.3	15.7	16.6	16.8
Old-age and early pensions, gross	8.3	8.6	9.0	9.8	11.1	11.6	12.0	12.9	14.4	15.3	15.6
Total pension expenditure, gross	10.4	10.7	11.0	11.5	12.5	13.1	13.7	15.2	17.4	19.0	20.0
All pensions, assets	4.0	5.3	13.2	21.9	31.4	40.9	49.7	58.8	67.2	72.1	72.7
Higher labour productivity; as % of GDP											
Social security pensions, gross	10.4	10.7	11.1	11.5	12.4	12.8	13.2	14.2	15.7	16.5	16.7
Old-age and early pensions, gross	8.3	8.7	9.0	9.9	11.1	11.6	11.9	12.9	14.3	15.2	15.4
Total pension expenditure, gross	10.4	10.7	11.1	11.5	12.5	13.1	13.7	15.1	17.2	18.7	19.6
All pensions, assets	4.0	5.3	13.2	21.8	31.0	40.2	48.6	57.3	65.2	69.9	70.5
Lower labour productivity; as % of GDP											
Social security pensions, gross	10.4	10.7	11.1	11.6	12.6	13.2	13.6	14.7	16.2	17.1	17.3
Old-age and early pensions, gross	8.3	8.7	9.0	10.0	11.3	11.9	12.3	13.3	14.9	15.8	16.0
Total pension expenditure, gross	10.4	10.7	11.1	11.6	12.7	13.4	14.1	15.7	17.9	19.6	20.7
All pensions, assets	4.0	5.3	13.2	22.1	31.9	41.8	51.1	60.8	69.7	75.1	76.0
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	10.4	10.7	11.0	11.3	12.2	12.7	13.0	14.0	15.4	16.2	16.4
Old-age and early pensions, gross	8.3	8.6	9.0	9.7	11.0	11.5	11.8	12.7	14.1	15.0	15.2
Total pension expenditure, gross	10.4	10.7	11.0	11.3	12.3	12.9	13.5	14.9	17.0	18.6	19.5
All pensions, assets	4.0	5.3	13.2	21.9	31.5	41.0	49.9	59.1	67.6	72.8	73.7
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	10.4	10.7	10.9	11.2	11.9	12.3	12.7	13.7	15.0	15.8	16.0
Old-age and early pensions, gross	8.3	8.6	8.9	9.5	10.7	11.1	11.4	12.3	13.7	14.6	14.8
Total pension expenditure, gross	10.4	10.7	10.9	11.2	12.0	12.6	13.2	14.5	16.6	18.1	19.0
All pensions, assets	4.0	5.3	13.2	21.8	31.2	40.6	49.2	58.2	66.6	71.9	73.0
Lower interest rate; as % of GDP											
Social security pensions, gross	10.4	10.7	11.1	11.6	12.5	13.0	13.5	14.6	16.0	16.9	17.1
Old-age and early pensions, gross	8.3	8.6	9.1	10.0	11.3	11.8	12.2	13.2	14.7	15.6	15.8
Total pension expenditure, gross	10.4	10.7	11.1	11.6	12.6	13.2	13.8	15.2	17.2	18.7	19.4
All pensions, assets	4.0	5.3	12.7	20.7	29.2	37.4	44.8	52.5	59.5	63.7	64.6
Higher interest rate; as % of GDP											
Social security pensions, gross	10.4	10.7	11.1	11.6	12.5	13.0	13.5	14.6	16.0	16.9	17.1
Old-age and early pensions, gross	8.3	8.6	9.1	10.0	11.3	11.8	12.2	13.2	14.7	15.6	15.8
Total pension expenditure, gross	10.4	10.7	11.1	11.6	12.7	13.3	14.1	15.7	18.1	20.1	21.3
All pensions, assets	4.0	5.4	13.7	23.3	34.1	45.3	55.9	67.2	77.6	83.8	84.4

: = data not provided

Hungary

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.5	5.5	5.7	5.8	5.9	6.1	6.2	6.3	6.4	6.5	6.5
Constant health scenario	5.5	5.5	5.5	5.6	5.6	5.6	5.6	5.7	5.7	5.7	5.8
Death-related costs scenario	5.5	5.5	5.6	5.6	5.7	5.8	5.8	5.9	5.9	5.9	6.0
Income elasticity of demand	5.5	5.5	5.8	6.0	6.2	6.4	6.6	6.7	6.8	6.9	6.9
Unit costs - GDP per worker	5.5	5.5	5.4	5.5	5.7	5.8	6.0	6.3	6.6	6.9	7.1
AWG reference scenario	5.5	5.5	5.7	5.9	6.0	6.2	6.3	6.3	6.4	6.5	6.5
Long-term care spending as % of GDP											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
Number of dependent people (in thousands)											
Pure ageing scenario	263	267	287	306	335	367	392	419	437	451	467
Unit costs - GDP per capita	263	267	287	306	335	178	392	419	437	451	467
Constant disability scenario	263	263	263	215	264	273	278	289	291	285	286
Increase in formal care	263	267	287	306	335	367	392	419	437	451	467
AWG reference scenario	263	265	275	283	300	320	335	354	364	368	376
of which receiving formal care											
Pure ageing scenario	0	0	0	0	0	0	0	0	0	0	0
Unit costs - GDP per capita	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
Increase in formal care	0	13	76	132	187	205	219	235	245	253	261
AWG reference scenario	0	0	0	0	0	0	0	0	0	0	0
of which receiving informal or no care											
Pure ageing scenario	263	267	287	306	335	367	392	419	437	451	467
Unit costs - GDP per capita	263	267	287	306	335	178	392	419	437	451	467
Constant disability scenario	263	263	263	215	264	273	278	289	291	285	286
Increase in formal care	263	254	211	174	147	161	172	185	192	199	206
AWG reference scenario	263	265	275	283	300	320	335	354	364	368	376
Education spending as % of GDP											
Total	4.5	4.4	3.9	3.7	3.5	3.5	3.5	3.6	3.7	3.8	3.8
of which: Transfers	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Primary	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Low secondary	1.0	0.9	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Upper secondary	1.3	1.3	1.2	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tertiary education	1.4	1.3	1.2	1.1	1.0	1.0	1.0	1.0	1.1	1.1	1.1
of which: Transfers	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Number of students (in thousands)											
Total	1929	1888	1710	1576	1505	1475	1457	1429	1390	1351	1324
Primary	448	432	391	390	382	375	372	356	342	338	336
Low secondary	500	492	418	390	390	383	380	374	357	345	342
Upper secondary	595	586	552	471	447	445	438	435	427	410	398
Tertiary education	385	379	349	324	286	271	267	264	263	259	249
Memo											
Population aged 15-64 (in thousands)	6944	6936	6852	6642	6325	6111	6028	5890	5679	5368	5182
Unemployment benefit spending as % of GDP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Malta

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.7	1.6	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Life expectancy at birth											
males	76.2	76.5	77.4	78.3	79.0	79.6	80.1	80.6	81.0	81.4	81.8
females	80.7	80.9	81.7	82.3	82.9	83.3	83.7	84.1	84.4	84.8	85.0
Life expectancy at 65											
males	15.2	15.4	16.0	16.6	17.1	17.6	18.0	18.3	18.7	19.0	19.2
females	18.3	18.4	19.0	19.5	19.9	20.3	20.6	20.9	21.1	21.4	21.6
Net migration (thousand)	2.6	2.6	2.4	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.5
Net migration as % of population	0.64	0.64	0.58	0.51	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Population (million)	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Population aged 0-14 as % of total	18.2	17.8	16.2	15.6	15.7	15.6	15.4	15.0	14.6	14.4	14.5
Prime age population (25-54) as % of total	42.2	42.1	41.8	41.1	40.7	40.9	40.0	38.9	37.8	37.1	36.5
Working age population (15-64) as % of total	68.7	69.0	69.6	67.1	64.8	63.1	62.2	62.7	62.9	62.0	60.8
Elderly population aged 65+ as % of total	13.0	13.2	14.2	17.3	19.4	21.3	22.4	22.3	22.5	23.6	24.7
Very elderly population aged 80 and over as % of total	2.7	2.8	3.2	3.6	4.1	4.6	6.3	7.2	7.9	8.0	7.5
lerly population aged 55+ as % of working age pop.15-64	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Macroeconomic assumptions											
Real GDP (growth rate)	1.9	2.0	2.5	3.1	2.7	2.9	3.1	2.1	1.8	1.7	1.7
Labour input (growth rate)	0.5	0.5	1.6	1.1	0.3	0.4	0.4	0.2	0.0	-0.1	-0.1
Labour productivity (growth rate)	1.4	1.5	0.8	2.0	2.3	2.5	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	0.0	0.0	0.3	1.3	1.5	1.6	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	1.4	1.5	0.6	0.7	0.9	0.9	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	1.2	0.9	1.6	2.4	2.0	2.3	2.6	1.8	1.6	1.4	1.4
GDP in 2004 prices (in billions of euro)	4	4	5	6	7	8	9	10	11	12	13
GDP per worker	13.7	13.8	14.8	16.4	18.1	20.2	22.9	25.4	27.6	29.7	31.8
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		1.3	0.2	-0.1	0.2	0.0	0.4	0.6	0.2	-0.1	-0.1
Labour force (thousands)	163	167	182	190	195	198	203	205	205	205	204
Participation rate (15-64)	59.5	60.1	61.8	64.6	66.1	67.1	68.0	67.1	66.0	65.8	66.0
young (15-24)	57.9	58.0	59.5	60.4	59.6	58.0	59.0	58.4	58.8	59.4	59.4
prime-age (25-54)	67.2	68.6	73.4	77.0	79.1	79.7	79.7	79.7	79.6	79.6	79.9
older (55-64)	33.9	33.8	30.1	31.4	31.4	31.1	35.1	35.9	34.6	34.2	33.7
oldest (65-71)	3.2	2.8	2.5	2.6	2.5	2.5	2.4	2.4	2.6	2.6	2.5
Employment rate (15-64)	54.5	55.0	56.7	60.1	61.5	62.4	63.2	62.4	61.4	61.2	61.3
Employment rate (15-71)	50.5	50.9	52.4	53.5	54.6	55.3	56.2	56.4	55.2	54.0	53.7
Employment growth (15-64)		2.3	1.6	1.1	0.3	0.4	0.4	0.2	0.0	-0.1	-0.1
Unemployment rate (15-64)	8.4	8.5	8.3	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	9.9	10.1	10.0	9.9	9.6	8.5	9.3	10.9	11.5	11.6	11.4
Old-age dependency ratio (1)	19.0	19.2	20.4	25.7	30.0	33.8	36.0	35.5	35.9	38.0	40.6
Total dependency ratio (2)	45.5	45.0	43.6	48.9	54.2	58.4	60.7	59.4	59.1	61.4	64.6
Total economic dependency ratio	166.9	163.6	153.4	147.7	150.8	153.7	154.1	155.5	159.1	163.5	168.3
Economic old-age dependency ratio (15-64)	34.3	34.5	35.6	42.3	48.2	53.5	56.4	56.5	57.9	61.5	65.6
Economic old-age dependency ratio (15-71)	34.1	34.3	35.4	42.0	48.0	53.2	56.1	56.2	57.6	61.2	65.2

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Malta

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	7.4	7.5	8.8	9.8	10.2	10.0	9.1	8.4	7.9	7.5	7.0
Old-age and early pensions, gross	3.9	3.9	5.2	6.3	7.0	7.3	7.0	6.6	6.6	6.6	6.5
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	3.6	3.6	3.6	3.5	3.2	2.7	2.2	1.7	1.3	1.0	0.5
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	7.4	7.5	8.8	9.8	10.2	10.0	9.1	8.4	7.9	7.5	7.0
Social security pensions, net	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, contributions	7.1	6.9	6.8	6.4	5.9	5.4	4.8	4.3	3.9	3.6	3.3
Total pension contributions	7.1	6.9	6.8	6.4	5.9	5.4	4.8	4.3	3.9	3.6	3.3
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net / Total pension exp., gross, %	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, number of pensioners , 1000 pers.	60	62	74	86	97	107	113	118	122	126	130
All pensions, pensioners , 1000 pers.	60	62	74	86	97	107	113	118	122	126	130
Number of pensioners aged 65+ , 1000 pers.	42	43	48	61	72	82	90	92	94	98	102
Share of pensioners below age 65 as % of all pensioners	29.9	29.9	34.4	29.1	26.3	23.3	20.7	21.8	23.1	22.4	21.3
Average gross social sec. pension, 1000€ in 2004 prices	5.4	5.4	6.0	6.5	6.9	7.0	7.0	7.0	7.0	7.1	7.0
Average gross total pensions, 1000€ in 2004 prices	5.4	5.4	6.0	6.5	6.9	7.0	7.0	7.0	7.0	7.1	7.0
Output / Worker, 1000€ in 2004 prices	29.3	29.7	30.0	32.3	36.2	40.7	46.3	51.7	56.8	62.2	67.8
Social sec. benefit ratio	18.4	18.2	19.9	20.1	19.0	17.2	15.2	13.5	12.4	11.4	10.3
Total pension benefit ratio	18.4	18.2	19.9	20.1	19.0	17.2	15.2	13.5	12.4	11.4	10.3
Social security pensions, num of contributors, in 1000	159	162	171	177	181	185	191	196	199	202	205
Average social sec. pension contribution, 1000€ in 2004 prices	2.0	1.9	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	264	262	233	206	186	173	168	166	163	160	158
High life expectancy; as % of GDP											
Social security pensions, gross	7.5	7.6	9.0	10.1	10.6	10.5	9.6	8.9	8.4	8.1	7.6
Old-age and early pensions, gross	3.9	4.0	5.3	6.5	7.3	7.6	7.3	7.1	7.1	7.1	7.0
Total pension expenditure, gross	7.5	7.6	9.0	10.1	10.6	10.5	9.6	8.9	8.4	8.1	7.6
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	7.5	7.6	8.8	9.7	10.1	9.7	8.8	7.9	7.4	6.9	6.4
Old-age and early pensions, gross	3.9	3.9	5.2	6.3	6.9	7.1	6.7	6.3	6.1	6.1	5.9
Total pension expenditure, gross	7.5	7.6	8.8	9.7	10.1	9.7	8.8	7.9	7.4	6.9	6.4
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	7.4	7.5	8.8	9.8	10.4	10.3	9.6	8.8	8.5	8.2	7.7
Old-age and early pensions, gross	3.9	3.9	5.2	6.4	7.2	7.6	7.3	7.0	7.1	7.1	7.1
Total pension expenditure, gross	7.4	7.5	8.8	9.8	10.4	10.3	9.6	8.8	8.5	8.2	7.7
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	7.4	7.5	8.7	9.7	10.1	9.9	9.1	8.3	7.8	7.5	7.0
Old-age and early pensions, gross	3.9	3.9	5.2	6.2	7.0	7.3	6.9	6.6	6.5	6.5	6.4
Total pension expenditure, gross	7.4	7.5	8.7	9.7	10.1	9.9	9.1	8.3	7.8	7.5	7.0
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	7.4	7.5	8.8	9.7	10.2	10.0	9.1	8.4	7.9	7.5	7.1
Old-age and early pensions, gross	3.9	3.9	5.2	6.3	7.0	7.3	7.0	6.6	6.6	6.6	6.5
Total pension expenditure, gross	7.4	7.5	8.8	9.7	10.2	10.0	9.1	8.4	7.9	7.5	7.1
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	7.4	7.5	8.8	9.8	10.2	10.0	9.1	8.4	7.9	7.5	7.0
Old-age and early pensions, gross	3.9	3.9	5.2	6.3	7.0	7.3	7.0	6.6	6.6	6.6	6.5
Total pension expenditure, gross	7.4	7.5	8.8	9.8	10.2	10.0	9.1	8.4	7.9	7.5	7.0
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	7.4	7.5	8.8	9.8	10.2	10.0	9.1	8.4	7.9	7.5	7.0
Old-age and early pensions, gross	3.9	3.9	5.2	6.3	7.0	7.3	7.0	6.6	6.6	6.6	6.5
Total pension expenditure, gross	7.4	7.5	8.8	9.8	10.2	10.0	9.1	8.4	7.9	7.5	7.0
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:

: = data not provided

Malta

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	4.2	4.3	4.5	4.8	5.1	5.4	5.6	5.8	6.0	6.1	6.2
Constant health scenario	4.2	4.3	4.4	4.6	4.8	4.9	5.1	5.3	5.4	5.4	5.5
Death-related costs scenario	4.2	4.2	4.4	4.6	4.8	5.0	5.1	5.3	5.3	5.3	5.4
Income elasticity of demand	4.2	4.3	4.6	4.9	5.2	5.5	5.8	6.0	6.2	6.4	6.5
Unit costs - GDP per worker	4.2	4.3	4.4	4.6	4.9	5.2	5.5	5.7	6.0	6.2	6.4
AWG reference scenario	4.2	4.3	4.5	4.8	5.0	5.3	5.5	5.7	5.9	6.0	6.1
Long-term care spending as % of GDP											
Pure ageing scenario	0.9	0.9	0.9	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.2
Unit costs - GDP per capita	0.9	0.9	0.9	0.9	1.0	0.8	1.1	1.2	1.2	1.2	1.2
Constant disability scenario	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.0
Increase in formal care	0.9	0.9	0.9	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.3
AWG reference scenario	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.1	1.1	1.2	1.1
Number of dependent people (in thousands)											
Pure ageing scenario	13	13	15	19	22	26	31	33	35	36	37
Unit costs - GDP per capita	13	13	15	19	22	13	31	33	35	36	37
Constant disability scenario	13	13	14	13	18	19	22	24	24	24	23
Increase in formal care	13	13	15	19	22	26	31	33	35	36	37
AWG reference scenario	13	13	15	17	20	23	26	29	30	30	30
of which receiving formal care											
Pure ageing scenario	11	11	13	16	19	22	27	30	31	32	32
Unit costs - GDP per capita	11	11	13	16	19	22	27	30	31	32	32
Constant disability scenario	11	11	12	14	15	17	20	21	22	22	21
Increase in formal care	11	12	14	17	20	24	29	32	33	34	35
AWG reference scenario	11	11	13	15	17	19	23	26	27	27	27
of which receiving informal or no care											
Pure ageing scenario	2	2	2	3	3	4	4	4	4	4	4
Unit costs - GDP per capita	2	2	2	3	3	1	4	4	4	4	4
Constant disability scenario	2	2	2	2	2	3	2	2	2	2	2
Increase in formal care	2	2	2	2	1	2	2	2	2	2	2
AWG reference scenario	2	2	2	2	3	3	3	3	3	3	3
Education spending as % of GDP											
Total	4.4	4.4	3.7	3.3	3.2	3.3	3.3	3.3	3.3	3.3	3.3
of which: Transfers	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4
Primary	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.9
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.6	1.5	1.3	1.1	1.2	1.1	1.1	1.2	1.2	1.1	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	0.6	0.6	0.6	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5
of which: Transfers	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Tertiary education	1.2	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
of which: Transfers	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Number of students (in thousands)											
Total	77	76	69	67	68	70	71	72	72	71	71
Primary	31	30	27	29	29	30	31	30	30	30	30
Low secondary	29	29	25	22	25	25	26	26	26	25	25
Upper secondary	9	9	9	8	7	8	8	8	8	8	8
Tertiary education	9	9	8	8	7	7	7	7	7	7	7
Memo											
Population aged 15-64 (in thousands)	275	279	294	295	294	295	298	306	311	311	309
Unemployment benefit spending as % of GDP	1.2	1.2	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Netherlands

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Life expectancy at birth											
males	76.2	76.4	77.0	77.6	78.3	78.8	79.4	79.8	80.3	80.7	81.1
females	80.8	80.9	81.4	82.0	82.5	83.0	83.5	83.9	84.4	84.8	85.2
Life expectancy at 65											
males	15.4	15.5	15.9	16.3	16.7	17.1	17.5	17.9	18.2	18.5	18.9
females	19.0	19.0	19.4	19.8	20.1	20.5	20.8	21.2	21.5	21.8	22.1
Net migration (thousand)	21.0	24.1	32.6	33.3	32.5	31.9	31.6	31.6	31.5	31.3	31.1
Net migration as % of population	0.13	0.15	0.20	0.20	0.19	0.18	0.18	0.18	0.18	0.18	0.18
Population (million)	16.3	16.3	16.7	17.0	17.2	17.5	17.6	17.8	17.8	17.7	17.6
Population aged 0-14 as % of total	18.5	18.5	17.8	17.1	16.3	16.0	16.1	16.3	16.2	15.9	15.6
Prime age population (25-54) as % of total	44.1	43.7	42.0	40.4	38.7	37.1	36.4	36.6	36.7	36.7	36.6
Working age population (15-64) as % of total	67.6	67.5	67.3	65.8	64.8	63.2	61.1	59.4	58.7	59.3	60.0
Elderly population aged 65+ as % of total	13.8	14.0	14.9	17.1	18.9	20.8	22.7	24.4	25.1	24.8	24.4
Very elderly population aged 80 and over as % of total	3.4	3.5	3.7	3.9	4.2	4.8	6.0	6.8	7.6	8.5	9.2
lerly population aged 55+ as % of working age pop.15-64	10.6	10.7	11.3	12.2	13.0	14.1	15.1	15.7	15.8	15.5	15.2
Macroeconomic assumptions											
Real GDP (growth rate)	1.3	1.4	2.1	1.8	1.7	1.4	1.3	1.5	1.8	1.8	1.7
Labour input (growth rate)	0.5	0.7	0.4	0.1	-0.1	-0.3	-0.4	-0.2	0.1	0.1	0.0
Labour productivity (growth rate)	0.8	0.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	0.4	0.5	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.3	0.3	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	0.9	1.0	1.7	1.5	1.4	1.1	1.1	1.4	1.8	1.9	1.8
GDP in 2004 prices (in billions of euro)	465	472	517	568	620	668	713	765	833	912	996
GDP per worker	21.9	22.1	23.7	25.6	27.5	29.2	30.9	32.9	35.8	39.4	43.2
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.3	0.2	0.0	-0.1	-0.4	-0.5	-0.5	0.0	0.2	0.1
Labour force (thousands)	8444	8504	8727	8808	8832	8728	8548	8424	8424	8481	8509
Participation rate (15-64)	76.8	77.1	77.8	78.9	79.1	79.1	79.3	79.9	80.8	80.7	80.5
young (15-24)	72.9	73.0	73.4	73.5	73.5	74.1	73.8	73.5	73.4	73.5	73.7
prime-age (25-54)	85.8	86.3	88.0	89.1	89.8	90.2	90.4	90.4	90.5	90.5	90.5
older (55-64)	46.8	47.5	49.0	52.6	54.1	54.3	53.8	53.3	55.4	56.0	56.0
oldest (65-71)	8.5	9.1	9.9	10.0	9.9	10.1	10.2	10.1	9.7	9.9	10.1
Employment rate (15-64)	74.0	74.4	75.3	76.4	76.5	76.5	76.7	77.4	78.2	78.1	77.9
Employment rate (15-71)	69.0	69.4	69.7	69.3	69.2	68.8	68.2	68.4	69.4	70.6	70.6
Employment growth (15-64)		0.9	0.4	0.1	-0.1	-0.3	-0.4	-0.2	0.1	0.1	0.0
Unemployment rate (15-64)	3.7	3.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Dependency ratios:											
Share of older workers	10.4	10.8	12.1	13.2	14.6	15.4	14.9	13.3	12.7	13.1	13.7
Old-age dependency ratio (1)	20.5	20.7	22.2	26.0	29.2	32.8	37.2	41.1	42.8	41.8	40.6
Total dependency ratio (2)	47.9	48.1	48.7	52.0	54.3	58.2	63.7	68.5	70.3	68.6	66.7
Total economic dependency ratio	99.8	99.0	97.4	99.0	101.5	106.7	113.3	117.8	118.0	115.8	114.1
Economic old-age dependency ratio (15-64)	26.7	26.8	28.3	32.5	36.5	41.2	46.6	51.1	53.0	51.9	50.6
Economic old-age dependency ratio (15-71)	26.5	26.6	27.9	32.0	35.9	40.5	45.7	50.1	52.0	51.1	49.9

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Netherlands

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	7.7	7.4	7.6	8.3	9.0	9.7	10.7	11.4	11.7	11.4	11.2
Old-age and early pensions, gross	4.9	4.8	5.2	6.0	6.7	7.6	8.6	9.4	9.7	9.6	9.4
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	2.8	2.6	2.4	2.3	2.3	2.2	2.1	2.0	1.9	1.9	1.9
Occupational pensions, gross	4.6	4.8	4.7	5.2	5.8	6.7	7.7	8.6	9.0	8.8	8.7
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	12.4	12.2	12.3	13.6	14.8	16.4	18.4	20.0	20.6	20.3	20.0
Social security pensions, net	6.2	6.0	6.2	6.8	7.4	8.1	8.9	9.6	9.8	9.6	9.4
Total pension expenditure, net	9.6	9.4	9.6	10.6	11.5	12.8	14.4	15.6	16.1	15.8	15.5
Social security pensions, contributions	6.8	6.5	6.4	6.4	6.4	6.4	6.5	6.6	6.7	6.7	6.6
Total pension contributions	13.0	12.9	12.7	13.1	13.5	13.4	13.2	12.9	12.9	13.0	12.9
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	135.5	140.4	160.6	177.5	195.6	214.5	230.1	239.2	241.0	241.4	243.7
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	81	81	81	82	83	83	83	84	84	84	84
Total pension expenditure, net / Total pension exp., gross, %	77	77	78	78	78	78	78	78	78	78	78
Social security pensions, number of pensioners , 1000 pers.	3317	3310	3437	3818	4156	4514	4879	5168	5291	5213	5120
All pensions, pensioners , 1000 pers.	3540	3548	3765	4139	4487	4872	5224	5468	5556	5477	5399
Number of pensioners aged 65+ , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:	:	:	:
Average gross social sec. pension, 1000€ in 2004 prices	10.9	10.6	11.5	12.4	13.4	14.4	15.6	16.9	18.3	20.0	21.8
Average gross total pensions, 1000€ in 2004 prices	16.3	16.2	16.9	18.6	20.4	22.5	25.1	28.0	30.9	33.8	36.8
Output / Worker, 1000€ in 2004 prices	55.7	56.1	61.3	66.7	72.6	79.1	86.2	93.9	102.2	111.2	121.0
Social sec. benefit ratio	19.5	18.8	18.8	18.6	18.4	18.2	18.1	18.0	18.0	18.0	18.1
Total pension benefit ratio	29.2	28.9	27.6	27.9	28.2	28.5	29.2	29.9	30.3	30.4	30.4
Social security pensions, num of contributors, in 1000	12064	12105	12484	12844	13156	13454	13612	13664	13660	13641	13615
Average social sec. pension contribution, 1000€ in 2004 prices	2.6	2.5	2.6	2.8	3.0	3.2	3.4	3.7	4.1	4.5	4.9
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	364	366	363	336	317	298	279	264	258	262	266
High life expectancy; as % of GDP											
Social security pensions, gross	7.7	7.4	7.6	8.4	9.0	9.9	10.8	11.7	12.0	11.9	11.7
Old-age and early pensions, gross	4.9	4.8	5.2	6.0	6.8	7.7	8.7	9.7	10.1	10.0	9.9
Total pension expenditure, gross	12.4	12.2	12.3	13.5	14.8	16.5	18.5	20.3	21.1	20.9	20.7
All pensions, assets	135.5	140.4	161.0	178.3	197.0	217.5	235.9	247.4	251.4	253.7	257.4
Higher labour productivity; as % of GDP											
Social security pensions, gross	7.7	7.4	7.7	8.3	9.0	9.7	10.7	11.4	11.6	11.4	11.2
Old-age and early pensions, gross	4.9	4.8	5.2	6.0	6.7	7.6	8.6	9.4	9.7	9.5	9.3
Total pension expenditure, gross	12.4	12.2	12.3	13.6	14.7	16.3	18.2	19.8	20.4	20.0	19.6
All pensions, assets	135.5	140.4	160.5	176.1	192.2	210.1	225.4	234.4	236.3	236.9	239.3
Lower labour productivity; as % of GDP											
Social security pensions, gross	7.7	7.4	7.6	8.3	8.9	9.7	10.7	11.4	11.7	11.5	11.3
Old-age and early pensions, gross	4.9	4.8	5.2	6.0	6.7	7.6	8.6	9.4	9.8	9.6	9.4
Total pension expenditure, gross	12.4	12.2	12.3	13.6	14.8	16.5	18.6	20.2	20.9	20.6	20.3
All pensions, assets	135.5	140.4	160.7	178.9	198.6	218.0	234.1	243.5	245.3	245.6	247.8
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	7.7	7.4	7.6	8.3	8.9	9.7	10.6	11.3	11.6	11.4	11.1
Old-age and early pensions, gross	4.9	4.8	5.2	6.0	6.7	7.5	8.5	9.3	9.7	9.5	9.3
Total pension expenditure, gross	12.4	12.2	12.3	13.5	14.7	16.3	18.3	19.9	20.5	20.2	19.9
All pensions, assets	135.5	140.4	160.1	176.3	194.4	213.6	229.7	239.3	241.5	242.2	244.7
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	7.7	7.4	7.6	8.3	8.9	9.6	10.6	11.3	11.6	11.4	11.1
Old-age and early pensions, gross	4.9	4.8	5.2	6.0	6.7	7.5	8.5	9.3	9.7	9.5	9.3
Total pension expenditure, gross	12.4	12.2	12.3	13.5	14.7	16.3	18.3	20.0	20.6	20.3	19.9
All pensions, assets	135.5	140.4	160.3	176.9	194.6	213.4	229.7	239.5	241.7	242.1	244.3
Lower interest rate; as % of GDP											
Social security pensions, gross	7.7	7.4	7.6	8.3	9.0	9.7	10.7	11.4	11.7	11.4	11.2
Old-age and early pensions, gross	4.9	4.8	5.2	6.0	6.7	7.6	8.6	9.4	9.7	9.6	9.4
Total pension expenditure, gross	12.4	12.2	12.2	13.2	14.3	15.8	17.8	19.4	20.1	19.9	19.7
All pensions, assets	135.5	140.4	166.9	189.2	211.4	235.2	256.1	270.1	275.9	279.5	284.3
Higher interest rate; as % of GDP											
Social security pensions, gross	7.7	7.4	7.6	8.3	9.0	9.7	10.7	11.4	11.7	11.4	11.2
Old-age and early pensions, gross	4.9	4.8	5.2	6.0	6.7	7.6	8.6	9.4	9.7	9.6	9.4
Total pension expenditure, gross	12.4	12.2	12.5	13.9	15.2	16.9	18.9	20.5	21.1	20.6	20.2
All pensions, assets	135.5	140.4	152.1	165.6	180.8	196.1	208.1	213.9	212.9	211.0	211.2

: = data not provided

Netherlands

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.1	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.4	7.4	7.4
Constant health scenario	6.1	6.1	6.2	6.3	6.5	6.6	6.8	6.9	6.9	6.9	6.9
Death-related costs scenario	6.1	6.1	6.2	6.4	6.6	6.8	6.9	7.0	7.1	7.1	7.1
Income elasticity of demand	6.1	6.1	6.3	6.6	6.8	7.1	7.3	7.5	7.6	7.7	7.7
Unit costs - GDP per worker	6.1	6.1	6.2	6.4	6.7	7.1	7.6	7.9	8.0	7.9	7.9
AWG reference scenario	6.1	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.4	7.4	7.4
Long-term care spending as % of GDP											
Pure ageing scenario	0.5	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2
Unit costs - GDP per capita	0.5	0.5	0.5	0.5	0.6	0.5	0.8	0.9	1.0	1.1	1.1
Constant disability scenario	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.8	0.8	0.9	0.9
Increase in formal care	0.5	0.5	0.7	0.9	1.1	1.2	1.5	1.8	1.9	2.1	2.3
AWG reference scenario	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.9	0.9	1.0	1.1
Number of dependent people (in thousands)											
Pure ageing scenario	362	367	396	441	490	561	652	721	775	813	833
Unit costs - GDP per capita	362	367	396	441	490	286	652	721	775	813	833
Constant disability scenario	362	362	365	316	393	423	473	502	523	539	543
Increase in formal care	362	367	396	441	490	561	652	721	775	813	833
AWG reference scenario	362	365	380	410	442	492	563	612	649	676	688
of which receiving formal care											
Pure ageing scenario	79	80	87	97	110	128	149	166	180	190	194
Unit costs - GDP per capita	79	80	87	97	110	128	149	166	180	190	194
Constant disability scenario	79	79	80	83	88	97	109	116	121	126	127
Increase in formal care	79	94	168	245	323	370	431	477	513	539	552
AWG reference scenario	79	79	83	90	99	113	129	141	151	158	161
of which receiving informal or no care											
Pure ageing scenario	283	287	309	344	381	432	503	555	596	623	639
Unit costs - GDP per capita	283	287	309	344	381	220	503	555	596	623	639
Constant disability scenario	283	283	285	247	305	326	364	386	402	413	416
Increase in formal care	283	273	227	196	168	190	221	244	262	274	281
AWG reference scenario	283	285	297	320	343	379	433	471	499	518	527
Education spending as % of GDP											
Total	4.8	4.8	4.7	4.7	4.6	4.5	4.6	4.7	4.7	4.7	4.6
of which: Transfers	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Primary	1.5	1.4	1.5	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.3
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.2	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.2	1.2	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9
of which: Transfers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Tertiary education	1.3	1.3	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.2	1.3
of which: Transfers	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of students (in thousands)											
Total	3232	3237	3301	3298	3226	3148	3125	3150	3179	3170	3126
Primary	1282	1283	1332	1276	1207	1201	1229	1254	1258	1234	1197
Low secondary	800	808	800	841	805	761	756	772	788	791	777
Upper secondary	629	629	650	651	673	642	619	618	627	634	634
Tertiary education	522	517	518	530	541	544	522	506	506	511	517
Memo											
Population aged 15-64 (in thousands)	10991	11029	11214	11158	11167	11037	10783	10538	10431	10509	10575
Unemployment benefit spending as % of GDP	1.8	1.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Austria

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
Life expectancy at birth											
males	76.2	76.4	77.4	78.4	79.3	80.1	80.8	81.4	81.9	82.3	82.8
females	82.1	82.3	83.2	84.0	84.7	85.4	85.9	86.3	86.7	86.9	87.2
Life expectancy at 65											
males	16.2	16.3	16.9	17.5	18.1	18.6	19.1	19.5	19.8	20.1	20.4
females	19.7	19.8	20.5	21.2	21.7	22.2	22.6	22.9	23.2	23.4	23.6
Net migration (thousand)	25.0	24.7	23.6	22.8	20.6	19.6	19.1	19.4	19.7	20.0	20.3
Net migration as % of population	0.31	0.30	0.29	0.27	0.24	0.23	0.22	0.23	0.23	0.24	0.25
Population (million)	8.1	8.1	8.3	8.4	8.4	8.5	8.5	8.5	8.4	8.3	8.2
Population aged 0-14 as % of total	16.3	16.1	14.9	14.2	14.0	13.8	13.5	13.1	12.6	12.4	12.4
Prime age population (25-54) as % of total	44.0	43.9	43.8	42.7	40.8	38.4	37.1	36.6	35.9	35.4	34.8
Working age population (15-64) as % of total	68.2	67.9	67.4	66.9	66.0	64.1	61.5	59.2	58.2	58.1	57.5
Elderly population aged 65+ as % of total	15.5	16.0	17.7	18.8	20.0	22.1	25.0	27.7	29.1	29.6	30.1
Very elderly population aged 80 and over as % of total	4.1	4.2	4.8	5.0	5.4	6.6	7.2	7.9	9.1	10.9	12.4
lerly population aged 55+ as % of working age pop.15-64	5.2	5.3	5.4	5.7	6.2	6.8	7.3	7.6	7.8	7.8	7.9
Macroeconomic assumptions											
Real GDP (growth rate)	1.8	1.9	2.6	2.0	1.7	1.1	1.0	1.1	1.4	1.3	1.2
Labour input (growth rate)	0.3	0.5	0.9	0.2	-0.1	-0.7	-0.7	-0.6	-0.4	-0.4	-0.6
Labour productivity (growth rate)	1.5	1.4	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	0.8	0.7	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.8	0.7	0.5	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.2	1.6	2.3	1.8	1.5	1.0	1.1	1.3	1.5	1.6	1.5
GDP in 2004 prices (in billions of euro)	232	236	265	297	326	348	367	387	413	441	468
GDP per worker	23.5	23.9	26.5	29.3	31.8	33.7	35.6	37.6	40.5	43.8	47.2
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		-0.1	0.2	-0.1	-0.2	-0.6	-0.9	-0.8	-0.4	-0.3	-0.5
Labour force (thousands)	4016	4049	4233	4331	4349	4234	4100	3967	3889	3815	3715
Participation rate (15-64)	72.6	73.3	76.1	77.4	78.1	77.7	78.3	79.1	79.5	79.1	79.1
young (15-24)	56.2	56.6	56.5	57.7	57.3	56.9	56.7	56.7	56.9	57.2	57.2
prime-age (25-54)	88.1	88.6	90.5	91.5	92.0	92.3	92.5	92.6	92.6	92.6	92.5
older (55-64)	32.3	33.5	41.6	47.9	54.4	55.3	56.8	57.3	59.5	58.8	59.2
oldest (65-71)	4.4	4.4	3.7	4.8	5.0	5.6	5.7	6.2	5.9	6.2	6.3
Employment rate (15-64)	69.6	70.4	73.5	74.8	75.4	75.1	75.7	76.3	76.7	76.4	76.4
Employment rate (15-71)	64.6	65.0	66.4	68.1	68.3	67.0	66.0	65.8	66.9	67.7	67.3
Employment growth (15-64)		1.1	0.9	0.2	-0.1	-0.7	-0.7	-0.6	-0.4	-0.4	-0.6
Unemployment rate (15-64)	4.2	3.9	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Dependency ratios:											
Share of older workers	7.8	7.9	9.2	11.6	15.3	17.3	17.1	15.4	15.9	16.4	17.1
Old-age dependency ratio (1)	22.8	23.6	26.3	28.1	30.3	34.4	40.6	46.8	50.0	50.9	52.4
Total dependency ratio (2)	46.7	47.3	48.4	49.4	51.5	55.9	62.6	68.9	71.7	72.2	73.9
Total economic dependency ratio	110.8	109.2	101.9	99.8	100.9	107.7	114.9	121.2	123.8	125.4	127.7
Economic old-age dependency ratio (15-64)	32.2	33.0	35.2	36.9	39.4	44.8	52.5	59.9	64.0	65.5	67.4
Economic old-age dependency ratio (15-71)	32.1	32.8	35.0	36.6	39.1	44.4	51.8	59.0	63.2	64.8	66.6

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Austria

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	13.4	13.2	12.8	12.7	12.8	13.5	14.0	14.0	13.4	12.7	12.2
Old-age and early pensions, gross	11.2	11.0	10.9	11.0	11.3	12.1	12.6	12.7	12.3	11.7	11.3
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	8.2	8.0	8.2	8.4	8.8	9.6	10.3	10.7	10.6	10.4	10.3
Public sector employees, gross	3.0	3.0	2.7	2.6	2.5	2.4	2.3	2.0	1.7	1.3	0.9
Other pensions (disability, survivors), gross	2.2	2.2	1.9	1.7	1.6	1.5	1.3	1.3	1.2	1.1	0.9
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	13.4	13.2	12.8	12.7	12.8	13.5	14.0	14.0	13.4	12.7	12.2
Social security pensions, net	11.4	11.1	10.7	10.6	10.7	11.3	11.6	11.7	11.3	10.7	10.3
Total pension expenditure, net	11.4	11.1	10.7	10.6	10.7	11.3	11.6	11.7	11.3	10.7	10.3
Social security pensions, contributions	9.0	9.0	9.1	9.0	8.9	8.7	8.6	8.6	8.5	8.6	8.6
Total pension contributions	9.0	9.0	9.1	9.0	8.9	8.7	8.6	8.6	8.5	8.6	8.6
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	86	84	84	83	83	83	83	84	84	84	84
Total pension expenditure, net / Total pension exp., gross, %	86	84	84	83	83	83	83	84	84	84	84
Social security pensions, number of pensioners , 1000 pers.	2337	2392	2449	2525	2611	2777	2912	3021	3023	2971	2892
All pensions, pensioners , 1000 pers.	2337	2391	2449	2524	2613	2778	2912	3018	3019	2966	2888
Number of pensioners aged 65+ , 1000 pers.	1594	1646	1750	1857	1944	2099	2301	2464	2478	2397	2313
Share of pensioners below age 65 as % of all pensioners	31.8	31.1	28.5	26.4	25.6	24.4	21.0	18.4	17.9	19.2	19.9
Average gross social sec. pension, 1000€ in 2004 prices	13.3	13.0	13.9	14.9	16.0	16.9	17.6	18.0	18.4	18.9	19.8
Average gross total pensions, 1000€ in 2004 prices	13.3	13.0	13.9	14.9	16.0	16.9	17.6	18.0	18.4	19.0	19.8
Output / Worker, 1000€ in 2004 prices	60.9	61.8	64.9	71.0	77.6	85.0	92.7	101.0	110.0	119.7	130.4
Social sec. benefit ratio	21.8	21.1	21.4	21.0	20.6	19.9	19.0	17.8	16.7	15.8	15.2
Total pension benefit ratio	21.8	21.1	21.4	21.0	20.6	19.9	19.0	17.8	16.7	15.8	15.2
Social security pensions, num of contributors, in 1000	3526	3638	3799	3864	3870	3764	3653	3557	3500	3445	3370
Average social sec. pension contribution, 1000€ in 2004 prices	5.9	5.8	6.3	6.9	7.5	8.1	8.7	9.3	10.1	11.0	11.9
Average total pension contribution, 1000€ in 2004 prices	5.9	5.8	6.3	6.9	7.5	8.1	8.7	9.3	10.1	11.0	11.9
Support ratio (contributors /100 pensioners, social sec. pens.)	151	152	155	153	148	136	125	118	116	116	117
High life expectancy; as % of GDP											
Social security pensions, gross	13.4	13.2	12.9	12.7	12.9	13.7	14.2	14.3	13.8	13.1	12.6
Old-age and early pensions, gross	11.2	11.0	10.9	11.0	11.3	12.2	12.8	13.0	12.5	12.0	11.6
Total pension expenditure, gross	13.4	13.2	12.9	12.7	12.9	13.7	14.2	14.3	13.8	13.1	12.6
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	13.4	13.2	12.8	12.6	12.6	13.2	13.5	13.5	12.8	12.1	11.4
Old-age and early pensions, gross	11.2	11.0	10.9	10.9	11.1	11.8	12.2	12.3	11.7	11.1	10.6
Total pension expenditure, gross	13.4	13.2	12.8	12.6	12.6	13.2	13.5	13.5	12.8	12.1	11.4
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	13.4	13.2	12.8	12.8	13.1	13.9	14.5	14.7	14.2	13.6	13.2
Old-age and early pensions, gross	11.2	11.0	10.9	11.1	11.5	12.4	13.1	13.3	13.0	12.5	12.2
Total pension expenditure, gross	13.4	13.2	12.8	12.8	13.1	13.9	14.5	14.7	14.2	13.6	13.2
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	13.4	13.2	12.8	12.6	12.7	13.4	13.8	13.8	13.2	12.5	12.0
Old-age and early pensions, gross	11.2	11.0	10.9	10.9	11.1	11.9	12.4	12.6	12.1	11.5	11.1
Total pension expenditure, gross	13.4	13.2	12.8	12.6	12.7	13.4	13.8	13.8	13.2	12.5	12.0
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	13.4	13.2	12.8	12.6	12.6	13.2	13.6	13.7	13.1	12.3	11.8
Old-age and early pensions, gross	11.2	11.0	10.9	10.9	11.1	11.7	12.3	12.4	11.9	11.3	10.8
Total pension expenditure, gross	13.4	13.2	12.8	12.6	12.6	13.2	13.6	13.7	13.1	12.3	11.8
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	13.4	13.2	12.8	12.7	12.8	13.5	14.0	14.0	13.4	12.7	12.2
Old-age and early pensions, gross	11.2	11.0	10.9	11.0	11.3	12.1	12.6	12.7	12.3	11.7	11.3
Total pension expenditure, gross	13.4	13.2	12.8	12.7	12.8	13.5	14.0	14.0	13.4	12.7	12.2
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	13.4	13.2	12.8	12.7	12.8	13.5	14.0	14.0	13.4	12.7	12.2
Old-age and early pensions, gross	11.2	11.0	10.9	11.0	11.3	12.1	12.6	12.7	12.3	11.7	11.3
Total pension expenditure, gross	13.4	13.2	12.8	12.7	12.8	13.5	14.0	14.0	13.4	12.7	12.2
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:

: = data not provided

Austria

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.3	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9	6.9
Constant health scenario	5.3	5.3	5.3	5.5	5.6	5.7	5.8	6.0	6.1	6.2	6.3
Death-related costs scenario	5.3	5.3	5.4	5.6	5.8	6.0	6.1	6.3	6.4	6.5	6.6
Income elasticity of demand	5.3	5.3	5.5	5.8	6.1	6.3	6.5	6.8	7.0	7.1	7.2
Unit costs - GDP per worker	5.3	5.3	5.3	5.5	5.7	6.1	6.6	7.0	7.3	7.5	7.6
AWG reference scenario	5.3	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.8	6.8
Long-term care spending as % of GDP											
Pure ageing scenario	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.5
Unit costs - GDP per capita	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.1	1.3	1.4
Constant disability scenario	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.5
Increase in formal care	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.5
AWG reference scenario	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.5
Number of dependent people (in thousands)											
Pure ageing scenario	197	203	223	238	259	289	322	357	388	410	419
Unit costs - GDP per capita	197	203	223	238	259	143	322	357	388	410	419
Constant disability scenario	197	200	204	167	205	216	227	238	251	261	263
Increase in formal care	197	203	223	238	259	289	322	357	388	410	419
AWG reference scenario	197	201	214	221	232	252	275	298	319	335	341
of which receiving formal care											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
of which receiving informal or no care											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
Education spending as % of GDP											
Total	5.1	5.0	4.6	4.3	4.1	4.1	4.2	4.2	4.2	4.1	4.1
of which: Transfers	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Primary	1.1	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.4	1.4	1.2	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.3	1.3	1.2	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.0
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	1.4	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
of which: Transfers	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Number of students (in thousands)											
Total	1428	1414	1341	1270	1226	1205	1192	1170	1131	1089	1057
Primary	371	362	330	323	320	322	318	304	289	279	275
Low secondary	395	395	360	335	327	325	326	320	306	292	283
Upper secondary	426	429	431	394	371	362	359	359	352	337	323
Tertiary education	236	228	220	218	207	196	189	186	184	181	176
Memo											
Population aged 15-64 (in thousands)	5531	5525	5562	5594	5569	5447	5233	5018	4895	4822	4698
Unemployment benefit spending as % of GDP	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

Poland

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.6	1.6
Life expectancy at birth											
males	70.5	70.7	72.0	73.3	74.6	75.8	76.8	77.6	78.2	78.7	79.1
females	78.5	78.7	79.6	80.5	81.3	82.1	82.8	83.3	83.7	84.1	84.4
Life expectancy at 65											
males	13.7	13.8	14.5	15.2	15.9	16.6	17.3	17.8	18.1	18.5	18.8
females	17.4	17.5	18.1	18.6	19.2	19.8	20.3	20.7	21.0	21.2	21.5
Net migration (thousand)	-27.9	-27.8	-35.4	-51.5	-10.6	29.7	35.9	36.0	35.4	34.5	33.7
Net migration as % of population	-0.07	-0.07	-0.09	-0.14	-0.03	0.08	0.10	0.10	0.10	0.10	0.10
Population (million)	38.2	38.1	37.8	37.4	37.1	36.8	36.5	36.1	35.4	34.5	33.7
Population aged 0-14 as % of total	17.2	16.7	14.7	14.3	14.5	14.6	14.2	13.4	12.9	12.8	13.0
Prime age population (25-54) as % of total	43.7	43.8	44.3	43.7	43.4	42.9	41.3	38.8	36.0	34.3	33.4
Working age population (15-64) as % of total	69.8	70.2	71.8	70.5	67.3	64.3	63.3	63.1	62.4	60.4	57.6
Elderly population aged 65+ as % of total	13.0	13.1	13.5	15.3	18.2	21.1	22.6	23.4	24.8	26.8	29.4
Very elderly population aged 80 and over as % of total	2.4	2.5	3.2	3.9	4.2	4.3	5.4	7.3	8.8	9.0	8.8
lerly population aged 55+ as % of working age pop.15-64	21.7	21.6	21.7	23.5	25.5	27.2	28.2	29.1	30.4	31.9	33.4
Macroeconomic assumptions											
Real GDP (growth rate)	3.3	3.6	5.0	3.7	3.2	2.9	2.2	1.2	0.7	0.5	0.4
Labour input (growth rate)	-0.9	-0.6	1.4	0.4	0.1	0.0	-0.5	-0.8	-1.2	-1.3	-1.3
Labour productivity (growth rate)	4.1	4.2	3.6	3.3	3.1	2.9	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	2.5	2.4	2.4	1.9	1.9	1.8	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	1.7	1.8	1.2	1.4	1.3	1.1	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	3.4	3.8	5.2	3.9	3.4	3.1	2.4	1.5	1.2	1.0	0.9
GDP in 2004 prices (in billions of euro)	195	202	259	318	375	436	490	530	554	570	582
GDP per worker	9.0	9.4	12.1	15.0	17.9	20.9	23.7	25.9	27.7	29.1	30.5
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.4	0.1	-0.9	-1.1	-0.8	-0.4	-0.4	-0.8	-1.2	-1.6
Labour force (thousands)	17153	17343	18381	18445	17961	17438	17066	16508	15696	14720	13778
Participation rate (15-64)	64.3	64.8	67.7	69.9	72.0	73.6	73.8	72.5	71.1	70.5	71.0
young (15-24)	37.5	38.6	40.4	41.1	39.9	38.2	37.3	37.8	38.7	39.4	39.2
prime-age (25-54)	82.1	82.6	85.6	88.0	89.3	89.7	89.8	89.4	89.2	89.3	89.6
older (55-64)	29.9	29.9	37.1	40.2	41.0	43.6	49.1	51.4	51.3	49.7	49.3
oldest (65-71)	7.8	7.5	6.2	8.0	7.7	7.8	7.7	8.4	9.4	9.2	9.2
Employment rate (15-64)	52.1	52.7	57.0	61.0	64.9	68.4	68.6	67.4	66.2	65.6	66.1
Employment rate (15-71)	48.8	49.3	53.6	56.5	58.2	60.7	61.6	61.2	59.5	57.6	56.8
Employment growth (15-64)		1.5	1.4	0.4	0.1	0.0	-0.5	-0.8	-1.2	-1.3	-1.3
Unemployment rate (15-64)	19.0	18.7	15.8	12.9	9.9	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	6.3	6.5	9.9	12.0	11.5	10.9	12.8	15.8	18.5	18.9	17.8
Old-age dependency ratio (1)	18.6	18.7	18.8	21.7	27.1	32.8	35.7	37.1	39.7	44.3	51.0
Total dependency ratio (2)	43.3	42.5	39.3	41.9	48.6	55.4	58.0	58.4	60.3	65.4	73.5
Total economic dependency ratio	174.9	170.5	144.4	132.8	129.1	127.1	130.2	134.8	142.3	152.4	162.7
Economic old-age dependency ratio (15-64)	34.4	34.4	32.1	34.3	40.2	46.2	50.5	53.6	58.1	65.3	74.5
Economic old-age dependency ratio (15-71)	34.0	34.0	31.9	33.9	39.6	45.5	49.8	52.8	57.1	63.8	72.5

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Poland

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	13.9	13.7	11.3	9.8	9.7	9.5	9.2	8.9	8.6	8.3	8.0
Old-age and early pensions, gross	10.7	11.1	9.4	8.2	8.4	8.3	7.9	7.4	7.1	6.8	6.6
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	3.2	2.6	2.0	1.6	1.3	1.3	1.3	1.4	1.5	1.5	1.4
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.7	1.0	1.3
Total pension expenditure, gross	13.9	13.7	11.3	9.8	9.8	9.7	9.4	9.3	9.3	9.3	9.3
Social security pensions, net	11.8	11.7	9.6	8.3	8.3	8.1	7.8	7.5	7.3	7.1	6.8
Total pension expenditure, net	11.8	11.7	9.6	8.3	8.3	8.2	8.0	7.9	7.9	7.9	7.9
Social security pensions, contributions	7.7	7.8	8.0	8.1	8.1	8.0	7.9	7.9	7.9	7.9	7.9
Total pension contributions	9.0	9.3	9.7	9.9	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Social security pensions, assets	0.1	0.2	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.5
All pensions, assets	7.1	8.4	15.9	24.0	33.5	42.5	51.1	60.3	69.9	78.4	85.0
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	85	85	85	85	85	85	85	85	85	85	85
Total pension expenditure, net / Total pension exp., gross, %	85	85	85	85	85	85	85	85	85	85	85
Social security pensions, number of pensioners , 1000 pers.	7652	7632	7254	7445	7975	8392	8635	8865	9139	9416	9574
All pensions, pensioners , 1000 pers.	9943	9761	9123	8966	9280	9564	9771	10033	10353	10638	10769
Number of pensioners aged 65+ , 1000 pers.	6409	6348	6877	7383	8026	8380	8548	8786	9157	9613	9915
Share of pensioners below age 65 as % of all pensioners	35.5	35.0	24.6	17.7	13.5	12.4	12.5	12.4	11.6	9.6	7.9
Average gross social sec. pension, 1000€ in 2004 prices	3.5	3.6	4.0	4.2	4.6	4.9	5.2	5.3	5.2	5.0	4.9
Average gross total pensions, 1000€ in 2004 prices	2.7	2.8	3.2	3.5	4.0	4.4	4.7	4.9	5.0	5.0	5.0
Output / Worker, 1000€ in 2004 prices	14.2	14.8	16.7	19.8	23.2	26.9	30.8	34.5	38.0	41.6	45.4
Social sec. benefit ratio	25.0	24.6	24.1	21.1	19.7	18.4	16.9	15.4	13.8	12.1	10.7
Total pension benefit ratio	19.2	19.2	19.2	17.5	17.1	16.4	15.3	14.2	13.1	12.0	11.1
Social security pensions, num of contributors, in 1000	14433	14605	16156	16988	17287	17227	16815	16237	15443	14486	13565
Average social sec. pension contribution, 1000€ in 2004 prices	1.0	1.1	1.3	1.5	1.8	2.0	2.3	2.6	2.9	3.1	3.4
Average total pension contribution, 1000€ in 2004 prices	1.2	1.3	1.5	1.9	2.2	2.5	2.9	3.3	3.6	4.0	4.3
Support ratio (contributors /100 pensioners, social sec. pens.)	189	191	223	228	217	205	195	183	169	154	142
High life expectancy; as % of GDP											
Social security pensions, gross	13.9	13.7	11.3	9.8	9.7	9.5	9.2	9.0	8.8	8.5	8.2
Old-age and early pensions, gross	10.7	11.1	9.4	8.2	8.4	8.3	7.9	7.6	7.3	7.0	6.8
Total pension expenditure, gross	13.9	13.7	11.3	9.8	9.8	9.7	9.5	9.4	9.4	9.5	9.5
All pensions, assets	7.1	8.4	15.9	24.1	33.5	42.7	51.3	60.7	70.5	79.4	86.5
Higher labour productivity; as % of GDP											
Social security pensions, gross	13.9	13.7	11.3	9.7	9.5	9.2	8.9	8.5	8.2	7.9	7.6
Old-age and early pensions, gross	10.7	11.1	9.4	8.1	8.2	8.0	7.6	7.1	6.8	6.5	6.2
Total pension expenditure, gross	13.9	13.7	11.3	9.7	9.6	9.4	9.1	8.9	8.9	8.8	8.8
All pensions, assets	7.1	8.4	15.8	23.8	32.7	41.3	49.2	57.7	66.5	74.2	80.4
Lower labour productivity; as % of GDP											
Social security pensions, gross	13.9	13.7	11.3	9.8	9.8	9.7	9.4	9.1	8.9	8.6	8.3
Old-age and early pensions, gross	10.7	11.1	9.4	8.2	8.5	8.4	8.0	7.7	7.3	7.1	6.8
Total pension expenditure, gross	13.9	13.7	11.3	9.8	9.9	9.8	9.6	9.5	9.6	9.6	9.7
All pensions, assets	7.1	8.4	15.8	24.1	33.7	43.0	51.9	61.5	71.5	80.5	87.6
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	13.9	13.7	11.3	9.7	9.6	9.4	9.1	8.8	8.5	8.2	7.9
Old-age and early pensions, gross	10.7	11.1	9.3	8.1	8.3	8.2	7.8	7.4	7.0	6.7	6.5
Total pension expenditure, gross	13.9	13.7	11.3	9.7	9.7	9.6	9.3	9.2	9.2	9.2	9.2
All pensions, assets	7.1	8.5	15.9	24.1	33.5	42.5	51.0	60.1	69.6	77.9	84.5
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	13.9	13.7	11.3	9.7	9.7	9.5	9.2	8.9	8.6	8.3	8.0
Old-age and early pensions, gross	10.7	11.1	9.3	8.2	8.4	8.3	7.9	7.5	7.1	6.8	6.6
Total pension expenditure, gross	13.9	13.7	11.3	9.8	9.8	9.7	9.4	9.3	9.3	9.3	9.3
All pensions, assets	7.1	8.5	16.1	24.4	33.9	43.1	51.8	61.0	70.4	78.7	85.1
Lower interest rate; as % of GDP											
Social security pensions, gross	13.9	13.7	11.3	9.8	9.7	9.5	9.2	8.9	8.7	8.4	8.0
Old-age and early pensions, gross	10.7	11.1	9.4	8.2	8.4	8.3	7.9	7.5	7.1	6.9	6.6
Total pension expenditure, gross	13.9	13.7	11.3	9.8	9.8	9.7	9.5	9.3	9.3	9.4	9.3
All pensions, assets	6.9	8.3	15.1	22.5	30.7	38.4	45.4	52.8	60.4	67.1	72.3
Higher interest rate; as % of GDP											
Social security pensions, gross	13.9	13.7	11.3	9.8	9.7	9.5	9.2	8.9	8.7	8.4	8.0
Old-age and early pensions, gross	10.7	11.1	9.4	8.2	8.4	8.3	7.9	7.5	7.1	6.9	6.6
Total pension expenditure, gross	13.9	13.7	11.3	9.8	9.8	9.7	9.5	9.4	9.4	9.6	9.6
All pensions, assets	7.2	8.6	16.6	25.8	36.6	47.3	57.8	69.3	81.4	92.3	101.0

: = data not provided

Poland

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	4.1	4.1	4.3	4.5	4.7	4.8	5.0	5.1	5.2	5.3	5.4
Constant health scenario	4.1	4.1	4.2	4.3	4.4	4.5	4.5	4.6	4.7	4.7	4.8
Death-related costs scenario	4.1	4.1	4.3	4.4	4.5	4.6	4.8	4.8	4.9	5.0	5.0
Income elasticity of demand	4.1	4.2	4.4	4.7	4.9	5.2	5.4	5.5	5.6	5.7	5.8
Unit costs - GDP per worker	4.1	4.2	4.0	4.0	4.1	4.2	4.4	4.6	4.8	5.1	5.4
AWG reference scenario	4.1	4.1	4.4	4.6	4.8	5.0	5.1	5.2	5.3	5.4	5.5
Long-term care spending as % of GDP											
Pure ageing scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Unit costs - GDP per capita	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Constant disability scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Increase in formal care	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4
AWG reference scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Number of dependent people (in thousands)											
Pure ageing scenario	885	906	990	1098	1237	1401	1598	1780	1903	1949	2004
Unit costs - GDP per capita	885	906	990	1098	1237	650	1598	1780	1903	1949	2004
Constant disability scenario	885	892	906	773	978	1026	1118	1219	1276	1255	1226
Increase in formal care	885	906	990	1098	1237	1401	1598	1780	1903	1949	2004
AWG reference scenario	885	899	948	1016	1108	1214	1358	1500	1590	1602	1615
of which receiving formal care											
Pure ageing scenario	148	152	166	188	215	242	275	308	335	345	356
Unit costs - GDP per capita	148	152	166	188	215	242	275	308	335	345	356
Constant disability scenario	148	150	153	161	171	179	195	214	227	225	221
Increase in formal care	148	190	384	580	787	891	1016	1133	1213	1243	1278
AWG reference scenario	148	151	160	174	193	210	235	261	281	285	288
of which receiving informal or no care											
Pure ageing scenario	737	754	823	910	1022	1160	1323	1472	1568	1603	1648
Unit costs - GDP per capita	737	754	823	910	1022	534	1323	1472	1568	1603	1648
Constant disability scenario	737	742	753	639	807	847	923	1004	1049	1030	1006
Increase in formal care	737	716	605	517	450	510	582	648	690	706	725
AWG reference scenario	737	748	788	842	915	1003	1123	1238	1309	1316	1327
Education spending as % of GDP											
Total	5.0	4.9	3.9	3.3	3.0	2.9	3.0	3.0	3.0	3.0	3.1
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Primary	1.8	1.7	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.2
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	0.9	0.9	0.7	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.2	1.1	0.9	0.7	0.6	0.6	0.6	0.6	0.7	0.6	0.6
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	1.2	1.2	1.0	0.8	0.7	0.6	0.6	0.6	0.7	0.7	0.7
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of students (in thousands)											
Total	8775	8518	7248	6283	5767	5648	5643	5526	5256	4955	4749
Primary	2860	2733	2276	2094	2130	2190	2159	2021	1857	1763	1755
Low secondary	1681	1644	1336	1123	1043	1070	1105	1085	1011	927	884
Upper secondary	2232	2139	1823	1481	1273	1229	1276	1298	1256	1162	1076
Tertiary education	2002	2002	1813	1584	1321	1158	1105	1121	1132	1102	1033
Memo											
Population aged 15-64 (in thousands)	26659	26759	27159	26372	24943	23703	23121	22762	22062	20883	19399
Unemployment benefit spending as % of GDP	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2

Portugal

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Life expectancy at birth											
males	74.2	74.4	75.5	76.5	77.4	78.2	79.0	79.6	80.2	80.7	81.2
females	81.0	81.2	82.2	83.1	83.9	84.6	85.2	85.6	86.0	86.4	86.7
Life expectancy at 65											
males	15.6	15.7	16.4	17.0	17.6	18.1	18.6	18.9	19.3	19.6	19.9
females	19.0	19.1	19.8	20.4	21.0	21.5	21.9	22.3	22.6	22.9	23.1
Net migration (thousand)	41.8	36.4	18.3	16.6	15.6	15.1	15.0	14.9	14.9	14.9	14.9
Net migration as % of population	0.40	0.35	0.17	0.15	0.14	0.14	0.14	0.14	0.14	0.15	0.15
Population (million)	10.5	10.5	10.7	10.8	10.8	10.7	10.7	10.6	10.5	10.3	10.1
Population aged 0-14 as % of total	15.7	15.7	15.7	15.6	15.1	14.2	13.4	13.1	13.1	13.1	13.0
Prime age population (25-54) as % of total	43.5	43.6	43.8	42.5	40.7	38.9	37.0	35.1	34.0	33.7	33.6
Working age population (15-64) as % of total	67.4	67.3	66.6	65.5	64.5	63.7	62.2	60.5	58.3	56.0	54.9
Elderly population aged 65+ as % of total	16.8	17.0	17.7	18.9	20.4	22.2	24.4	26.4	28.6	30.8	32.1
Very elderly population aged 80 and over as % of total	3.7	3.8	4.4	5.0	5.6	6.0	6.8	7.7	8.6	9.8	10.7
lerly population aged 55+ as % of working age pop.15-64	6.8	6.8	7.3	7.7	8.2	8.5	9.0	9.6	10.1	10.5	10.5
Macroeconomic assumptions											
Real GDP (growth rate)	1.4	1.4	2.4	2.4	2.2	2.1	1.0	0.9	0.6	0.8	1.0
Labour input (growth rate)	0.9	0.7	0.3	-0.1	-0.3	-0.4	-0.7	-0.8	-1.1	-0.9	-0.7
Labour productivity (growth rate)	0.5	0.6	2.1	2.5	2.5	2.5	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	0.1	0.2	1.3	1.6	1.6	1.6	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.4	0.4	0.8	0.9	0.9	0.9	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	0.7	0.9	2.2	2.3	2.2	2.1	1.2	1.1	0.9	1.2	1.5
GDP in 2004 prices (in billions of euro)	135	137	152	171	192	213	231	242	251	260	272
GDP per worker	13.7	13.8	15.0	16.9	18.9	21.1	23.0	24.3	25.5	26.8	28.7
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.3	-0.1	-0.2	-0.3	-0.4	-0.7	-0.8	-1.1	-1.0	-0.7
Labour force (thousands)	5188	5249	5425	5440	5382	5278	5125	4933	4696	4458	4282
Participation rate (15-64)	73.4	74.1	76.2	77.2	77.4	77.2	77.1	77.0	77.0	77.4	77.7
young (15-24)	45.6	46.0	45.0	44.3	43.5	43.8	44.6	45.2	45.0	44.4	44.1
prime-age (25-54)	86.5	86.9	88.8	90.1	90.9	91.0	90.8	90.7	90.8	91.0	91.0
older (55-64)	54.7	55.5	58.3	60.7	62.8	64.5	66.4	66.7	66.0	65.7	66.2
oldest (65-71)	23.6	23.6	24.9	26.4	26.5	26.8	27.4	27.3	27.9	27.4	27.1
Employment rate (15-64)	68.9	69.7	71.9	72.9	73.1	72.9	72.8	72.7	72.8	73.1	73.4
Employment rate (15-71)	64.6	65.3	67.6	68.2	67.9	67.5	67.0	66.5	66.1	65.8	66.2
Employment growth (15-64)		1.4	0.3	-0.1	-0.3	-0.4	-0.7	-0.8	-1.1	-0.9	-0.7
Unemployment rate (15-64)	6.2	6.0	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Dependency ratios:											
Share of older workers	12.1	12.3	13.7	15.1	16.9	18.4	20.1	21.8	21.8	19.9	18.5
Old-age dependency ratio (1)	24.9	25.2	26.5	28.8	31.6	34.8	39.2	43.6	49.1	55.0	58.5
Total dependency ratio (2)	48.3	48.5	50.0	52.7	54.9	57.1	60.7	65.2	71.5	78.4	82.3
Total economic dependency ratio	115.2	113.2	108.6	109.5	112.0	115.5	120.6	127.2	135.7	144.2	148.5
Economic old-age dependency ratio (15-64)	32.6	32.7	33.4	35.5	38.7	42.9	48.2	54.1	60.9	68.1	73.0
Economic old-age dependency ratio (15-71)	31.5	31.6	32.2	34.1	37.1	40.9	45.7	51.0	57.1	63.6	68.4

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Portugal

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	11.1	11.5	11.9	12.6	14.1	15.0	16.0	17.4	18.8	20.0	20.8
Old-age and early pensions, gross	8.6	9.0	9.4	10.2	11.6	12.3	13.2	14.3	15.5	16.5	17.2
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	4.4	4.7	5.5	6.3	7.1	7.8	8.7	9.8	10.9	12.2	12.9
Public sector employees, gross	3.6	3.7	3.5	3.6	4.3	4.4	4.3	4.4	4.4	4.2	4.1
Other pensions (disability, survivors), gross	2.4	2.5	2.5	2.5	2.6	2.7	2.8	3.1	3.3	3.5	3.6
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	11.1	11.5	11.9	12.6	14.1	15.0	16.0	17.4	18.8	20.0	20.8
Social security pensions, net	10.3	10.8	11.1	11.8	13.2	14.0	14.9	16.2	17.6	18.7	19.4
Total pension expenditure, net	10.3	10.8	11.1	11.8	13.2	14.0	14.9	16.2	17.6	18.7	19.4
Social security pensions, contributions	10.5	10.6	10.5	9.9	9.6	9.5	9.4	9.2	9.1	9.2	9.2
Total pension contributions	10.5	10.6	10.5	9.9	9.6	9.5	9.4	9.2	9.1	9.2	9.2
Social security pensions, assets	4.3	4.4	4.0	:	:	:	:	:	:	:	:
All pensions, assets	4.3	4.4	4.0	:	:	:	:	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	93	93	93	93	93	93	93	93	93	93	93
Total pension expenditure, net / Total pension exp., gross, %	93	93	93	93	93	93	93	93	93	93	93
Social security pensions, number of pensioners , 1000 pers.	3048	3143	3304	3585	4005	4351	4698	4989	5244	5379	5454
All pensions, pensioners , 1000 pers.	3048	3143	3304	3585	4005	4351	4698	4989	5244	5379	5454
Number of pensioners aged 65+ , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:	:	:	:
Average gross social sec. pension, 1000€ in 2004 prices	4.9	5.0	5.5	6.0	6.8	7.3	7.9	8.4	9.0	9.7	10.4
Average gross total pensions, 1000€ in 2004 prices	4.9	5.0	5.5	6.0	6.8	7.3	7.9	8.4	9.0	9.7	10.4
Output / Worker, 1000€ in 2004 prices	26.4	26.5	29.6	33.4	37.8	42.8	47.7	52.0	56.7	61.7	67.3
Social sec. benefit ratio	18.6	18.9	18.4	18.1	17.9	17.2	16.5	16.2	15.9	15.7	15.4
Total pension benefit ratio	18.6	18.9	18.4	18.1	17.9	17.2	16.5	16.2	15.9	15.7	15.4
Social security pensions, num of contributors, in 1000	4285	4332	4436	4362	4335	4268	4108	3939	3751	3576	3468
Average social sec. pension contribution, 1000€ in 2004 prices	3.3	3.3	3.6	3.9	4.3	4.8	5.3	5.7	6.1	6.7	7.3
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	141	138	134	122	108	98	87	79	72	66	64
High life expectancy; as % of GDP											
Social security pensions, gross	11.1	11.5	11.9	12.7	14.2	15.1	16.2	17.6	19.2	20.5	21.4
Old-age and early pensions, gross	8.6	9.0	9.4	10.2	11.6	12.4	13.3	14.5	15.8	16.9	17.7
Total pension expenditure, gross	11.1	11.5	11.9	12.7	14.2	15.1	16.2	17.6	19.2	20.5	21.4
All pensions, assets	4.3	4.4	4.0	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	11.1	11.5	11.9	12.5	13.9	14.6	15.4	16.6	17.9	18.9	19.6
Old-age and early pensions, gross	8.6	9.0	9.4	10.1	11.3	12.0	12.7	13.7	14.7	15.5	16.1
Total pension expenditure, gross	11.1	11.5	11.9	12.5	13.9	14.6	15.4	16.6	17.9	18.9	19.6
All pensions, assets	4.3	4.4	4.0	:	:	:	:	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	11.1	11.5	11.9	12.7	14.4	15.4	16.6	18.2	19.8	21.2	22.1
Old-age and early pensions, gross	8.6	9.0	9.4	10.2	11.8	12.7	13.7	15.0	16.4	17.6	18.4
Total pension expenditure, gross	11.1	11.5	11.9	12.7	14.4	15.4	16.6	18.2	19.8	21.2	22.1
All pensions, assets	4.3	4.4	4.1	:	:	:	:	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	11.1	11.5	11.8	12.5	14.0	14.9	15.8	17.2	18.7	19.8	20.6
Old-age and early pensions, gross	8.6	9.0	9.4	10.1	11.5	12.2	13.0	14.2	15.4	16.4	17.0
Total pension expenditure, gross	11.1	11.5	11.8	12.5	14.0	14.9	15.8	17.2	18.7	19.8	20.6
All pensions, assets	4.3	4.4	4.4	0.3	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	11.1	11.5	11.9	12.6	14.0	14.8	15.8	17.2	18.6	19.8	20.5
Old-age and early pensions, gross	8.6	9.0	9.4	10.1	11.5	12.2	13.0	14.1	15.3	16.3	17.0
Total pension expenditure, gross	11.1	11.5	11.9	12.6	14.0	14.8	15.8	17.2	18.6	19.8	20.5
All pensions, assets	4.3	4.4	4.0	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	11.1	11.5	11.9	12.6	14.1	15.0	16.0	17.4	18.8	20.0	20.8
Old-age and early pensions, gross	8.6	9.0	9.4	10.2	11.6	12.3	13.2	14.3	15.5	16.5	17.2
Total pension expenditure, gross	11.1	11.5	11.9	12.6	14.1	15.0	16.0	17.4	18.8	20.0	20.8
All pensions, assets	4.3	4.4	3.8	:	:	:	:	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	11.1	11.5	11.9	12.6	14.1	15.0	16.0	17.4	18.8	20.0	20.8
Old-age and early pensions, gross	8.6	9.0	9.4	10.2	11.6	12.3	13.2	14.3	15.5	16.5	17.2
Total pension expenditure, gross	11.1	11.5	11.9	12.6	14.1	15.0	16.0	17.4	18.8	20.0	20.8
All pensions, assets	4.3	4.4	4.2	:	:	:	:	:	:	:	:

: = data not provided

Portugal

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.7	6.7	6.8	6.8	6.7	6.6	6.7	6.9	7.0	7.2	7.3
Constant health scenario	6.7	6.7	6.7	6.5	6.4	6.2	6.2	6.3	6.4	6.5	6.6
Death-related costs scenario	6.7	6.7	6.8	6.7	6.6	6.4	6.5	6.6	6.7	6.9	6.9
Income elasticity of demand	6.7	6.7	6.9	6.9	6.9	6.8	6.9	7.1	7.3	7.4	7.5
Unit costs - GDP per worker	6.7	6.7	6.7	6.7	6.7	6.7	6.9	7.3	7.8	8.2	8.5
AWG reference scenario	6.7	6.7	6.8	6.8	6.7	6.6	6.6	6.8	6.9	7.1	7.2
Long-term care spending as % of GDP											
Pure ageing scenario	:	:	:	:	:	:	:	:	:	:	:
Unit costs - GDP per capita	:	:	:	:	:	:	:	:	:	:	:
Constant disability scenario	:	:	:	:	:	:	:	:	:	:	:
Increase in formal care	:	:	:	:	:	:	:	:	:	:	:
AWG reference scenario	:	:	:	:	:	:	:	:	:	:	:
Number of dependent people (in thousands)											
Pure ageing scenario	295	302	331	363	394	427	471	514	557	599	626
Unit costs - GDP per capita	295	302	331	363	394	214	471	514	557	599	626
Constant disability scenario	295	297	303	258	315	321	335	350	366	382	390
Increase in formal care	295	302	331	363	394	427	471	514	557	599	626
AWG reference scenario	295	299	317	337	355	374	403	432	462	491	508
of which receiving formal care											
Pure ageing scenario	0	0	0	0	0	0	0	0	0	0	0
Unit costs - GDP per capita	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
Increase in formal care	0	15	88	157	221	239	264	288	312	335	351
AWG reference scenario	0	0	0	0	0	0	0	0	0	0	0
of which receiving informal or no care											
Pure ageing scenario	295	302	331	363	394	427	471	514	557	599	626
Unit costs - GDP per capita	295	302	331	363	394	214	471	514	557	599	626
Constant disability scenario	295	297	303	258	315	321	335	350	366	382	390
Increase in formal care	295	287	243	206	173	188	207	226	245	264	276
AWG reference scenario	295	299	317	337	355	374	403	432	462	491	508
Education spending as % of GDP											
Total	5.1	5.0	4.7	4.6	4.7	4.6	4.5	4.4	4.5	4.6	4.8
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Primary	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.6	1.7	1.8	1.8
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.2	1.2
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.1	1.1	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.9	1.0
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	1.0	1.0	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Number of students (in thousands)											
Total	1908	1882	1815	1812	1805	1749	1657	1569	1515	1488	1462
Primary	763	760	788	809	795	739	683	654	648	647	633
Low secondary	391	388	366	379	388	379	352	327	313	311	310
Upper secondary	360	351	325	315	325	329	317	294	275	267	266
Tertiary education	393	383	335	308	298	302	304	295	278	262	252
Memo											
Population aged 15-64 (in thousands)	7064	7086	7123	7050	6958	6840	6645	6407	6095	5761	5514
Unemployment benefit spending as % of GDP	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Slovenia

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.2	1.2	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Life expectancy at birth											
males	72.6	72.8	73.9	75.0	76.1	77.2	77.9	78.4	78.9	79.4	79.8
females	80.2	80.3	81.2	82.0	82.8	83.4	83.8	84.2	84.6	84.9	85.1
Life expectancy at 65											
males	14.3	14.4	14.9	15.6	16.2	16.9	17.4	17.7	18.1	18.4	18.7
females	18.4	18.5	19.1	19.7	20.3	20.7	21.0	21.3	21.5	21.8	22.0
Net migration (thousand)	6.1	6.2	5.9	3.8	5.3	6.8	7.0	7.0	6.9	6.8	6.7
Net migration as % of population	0.31	0.31	0.29	0.19	0.26	0.34	0.35	0.35	0.35	0.35	0.35
Population (million)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9
Population aged 0-14 as % of total	14.6	14.3	13.5	13.5	13.5	13.4	12.9	12.3	12.1	12.4	12.8
Prime age population (25-54) as % of total	45.7	45.8	45.4	44.1	42.1	39.8	37.9	35.7	34.3	33.7	34.0
Working age population (15-64) as % of total	70.4	70.4	70.0	68.7	66.1	63.8	62.1	60.7	59.5	57.6	56.0
Elderly population aged 65+ as % of total	15.0	15.3	16.5	17.8	20.4	22.8	25.1	27.0	28.4	30.0	31.1
Very elderly population aged 80 and over as % of total	2.9	3.0	3.8	4.6	5.1	5.6	6.3	7.8	9.1	9.9	10.6
lerly population aged 55+ as % of working age pop.15-64	1.1	1.2	1.2	1.3	1.5	1.6	1.7	1.8	1.8	1.9	1.9
Macroeconomic assumptions											
Real GDP (growth rate)	3.5	3.4	3.6	2.8	2.4	2.1	2.0	1.2	1.0	1.0	1.1
Labour input (growth rate)	0.0	-0.1	0.6	-0.4	-0.5	-0.7	-0.7	-0.8	-0.9	-0.8	-0.6
Labour productivity (growth rate)	3.5	3.5	3.1	3.2	3.0	2.8	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	1.1	1.1	1.2	1.6	1.6	1.7	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	2.4	2.4	1.9	1.6	1.3	1.1	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	3.4	3.2	3.5	2.8	2.5	2.1	2.1	1.4	1.3	1.3	1.5
GDP in 2004 prices (in billions of euro)	26	27	32	38	43	48	53	57	60	63	66
GDP per worker	14.7	15.1	18.1	21.1	23.9	26.7	29.6	32.2	34.4	36.6	39.3
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.2	0.1	-0.6	-0.8	-0.6	-0.6	-0.5	-0.8	-1.0	-0.8
Labour force (thousands)	955	967	1010	1007	981	950	916	882	845	810	782
Participation rate (15-64)	68.0	68.7	71.6	72.5	73.6	74.0	73.6	73.0	72.3	72.6	73.4
young (15-24)	33.3	32.7	32.9	32.1	31.2	30.9	30.2	31.1	31.9	32.0	31.4
prime-age (25-54)	88.5	88.9	90.3	91.4	92.6	92.8	92.5	92.1	91.9	92.1	92.3
older (55-64)	25.6	28.8	40.9	43.2	46.2	50.4	52.9	55.5	54.3	53.6	53.0
oldest (65-71)	6.1	6.1	7.4	13.3	13.1	12.5	12.7	12.4	12.7	12.8	12.3
Employment rate (15-64)	63.7	64.6	67.7	68.5	69.6	69.9	69.5	68.9	68.3	68.6	69.3
Employment rate (15-71)	58.8	59.6	62.4	63.4	62.8	62.4	61.9	61.1	60.6	60.1	60.4
Employment growth (15-64)		1.6	0.6	-0.4	-0.5	-0.7	-0.7	-0.8	-0.9	-0.8	-0.6
Unemployment rate (15-64)	6.3	6.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Dependency ratios:											
Share of older workers	5.8	6.6	10.6	12.7	13.9	15.7	16.7	18.7	19.4	18.6	16.7
Old-age dependency ratio (1)	21.4	21.7	23.6	25.9	30.8	35.8	40.4	44.5	47.7	52.1	55.6
Total dependency ratio (2)	42.1	42.0	42.9	45.5	51.3	56.9	61.1	64.7	68.0	73.6	78.5
Total economic dependency ratio	123.1	120.0	111.2	112.3	117.5	124.4	131.8	138.9	146.1	153.1	157.5
Economic old-age dependency ratio (15-64)	32.6	32.8	33.8	35.7	41.7	48.5	55.3	61.7	66.9	72.6	76.9
Economic old-age dependency ratio (15-71)	32.4	32.5	33.5	35.1	40.7	47.3	53.8	59.9	65.0	70.3	74.4

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Slovenia

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	11.0	11.0	11.1	11.6	12.3	13.3	14.4	15.6	16.8	17.8	18.3
Old-age and early pensions, gross	11.0	11.0	11.1	11.6	12.3	13.3	14.4	15.6	16.8	17.8	18.3
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:	:	:	:
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.0
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	11.0	11.0	11.1	11.6	12.4	13.5	14.7	16.1	17.5	18.7	19.3
Social security pensions, net	11.0	11.0	11.1	11.6	12.3	13.3	14.4	15.6	16.8	17.8	18.3
Total pension expenditure, net	11.0	11.0	11.1	11.6	12.4	13.5	14.7	16.0	17.4	18.5	19.1
Social security pensions, contributions	9.3	9.6	10.1	10.4	10.6	10.7	10.7	10.7	10.6	10.6	10.6
Total pension contributions	10.0	10.3	10.9	11.4	11.7	11.9	12.0	12.0	11.9	11.9	11.9
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	1.4	2.1	5.5	9.6	13.9	18.3	22.6	26.5	30.1	33.3	35.9
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	100	100	100	100	100	100	100	100	100	100	100
Total pension expenditure, net / Total pension exp., gross, %	100	100	100	100	100	100	100	99	99	99	99
Social security pensions, number of pensioners , 1000 pers.	524	530	571	609	647	686	722	752	778	789	781
All pensions, pensioners , 1000 pers.	524	530	571	609	647	686	722	752	778	789	781
Number of pensioners aged 65+ , 1000 pers.	315	324	354	386	438	490	537	572	595	619	629
Share of pensioners below age 65 as % of all pensioners	39.8	39.0	38.1	36.7	32.2	28.7	25.6	24.0	23.4	21.5	19.5
Average gross social sec. pension, 1000€ in 2004 prices	5.4	5.6	6.3	7.1	8.1	9.2	10.5	11.7	12.9	14.1	15.4
Average gross total pensions, 1000€ in 2004 prices	5.4	5.6	6.3	7.2	8.2	9.4	10.7	12.1	13.4	14.8	16.3
Output / Worker, 1000€ in 2004 prices	28.8	29.8	33.8	39.5	46.0	53.0	60.7	68.0	74.8	81.9	89.4
Social sec. benefit ratio	18.9	18.6	18.5	18.0	17.7	17.4	17.3	17.2	17.2	17.3	17.3
Total pension benefit ratio	18.9	18.6	18.5	18.1	17.8	17.7	17.7	17.8	17.9	18.1	18.2
Social security pensions, num of contributors, in 1000	807	829	873	878	860	833	803	773	741	712	688
Average social sec. pension contribution, 1000€ in 2004 prices	3.0	3.1	3.7	4.4	5.2	6.1	7.0	7.8	8.6	9.4	10.2
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	154	156	153	144	133	121	111	103	95	90	88
High life expectancy; as % of GDP											
Social security pensions, gross	10.9	10.9	10.9	11.4	12.2	13.2	14.4	15.6	17.0	18.1	18.8
Old-age and early pensions, gross	10.9	10.9	10.9	11.4	12.2	13.2	14.4	15.6	17.0	18.1	18.8
Total pension expenditure, gross	10.9	10.9	10.9	11.4	12.2	13.2	14.4	15.6	17.0	18.1	18.8
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	11.0	11.0	11.1	11.5	12.3	13.2	14.3	15.5	16.7	17.7	18.1
Old-age and early pensions, gross	11.0	11.0	11.1	11.5	12.3	13.2	14.3	15.5	16.7	17.7	18.1
Total pension expenditure, gross	11.0	11.0	11.1	11.5	12.3	13.2	14.3	15.5	16.7	17.7	18.1
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	11.0	11.0	11.1	11.5	12.3	13.2	14.3	15.4	16.7	17.6	18.1
Old-age and early pensions, gross	11.0	11.0	11.1	11.5	12.3	13.2	14.3	15.4	16.7	17.6	18.1
Total pension expenditure, gross	11.0	11.0	11.1	11.5	12.3	13.2	14.3	15.4	16.7	17.6	18.1
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	11.0	11.0	11.0	11.4	12.1	13.0	14.1	15.2	16.4	17.4	17.8
Old-age and early pensions, gross	11.0	11.0	11.0	11.4	12.1	13.0	14.1	15.2	16.4	17.4	17.8
Total pension expenditure, gross	11.0	11.0	11.0	11.4	12.1	13.0	14.1	15.2	16.4	17.4	17.8
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	11.0	11.0	11.0	11.2	11.8	12.6	13.6	14.7	15.9	16.9	17.4
Old-age and early pensions, gross	11.0	11.0	11.0	11.2	11.8	12.6	13.6	14.7	15.9	16.9	17.4
Total pension expenditure, gross	11.0	11.0	11.0	11.2	11.8	12.6	13.6	14.7	15.9	16.9	17.4
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	11.0	11.0	11.1	11.6	12.3	13.3	14.4	15.6	16.8	17.8	18.3
Old-age and early pensions, gross	11.0	11.0	11.1	11.6	12.3	13.3	14.4	15.6	16.8	17.8	18.3
Total pension expenditure, gross	11.0	11.0	11.1	11.6	12.4	13.5	14.7	16.1	17.5	18.7	19.3
All pensions, assets	1.4	2.1	5.5	9.6	13.9	18.3	22.6	26.5	30.1	33.3	35.9
Higher interest rate; as % of GDP											
Social security pensions, gross	11.0	11.0	11.1	11.6	12.3	13.3	14.4	15.6	16.8	17.8	18.3
Old-age and early pensions, gross	11.0	11.0	11.1	11.6	12.3	13.3	14.4	15.6	16.8	17.8	18.3
Total pension expenditure, gross	11.0	11.0	11.1	11.6	12.4	13.5	14.7	16.1	17.5	18.7	19.3
All pensions, assets	1.4	2.1	5.5	9.6	13.9	18.3	22.6	26.5	30.1	33.3	35.9

: = data not provided

Slovenia

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.4	6.5	6.6	6.8	7.0	7.2	7.4	7.6	7.7	7.8	7.8
Constant health scenario	6.4	6.5	6.6	6.6	6.8	6.9	7.0	7.2	7.2	7.3	7.3
Death-related costs scenario	6.4	6.5	6.6	6.7	6.8	7.0	7.1	7.2	7.3	7.4	7.4
Income elasticity of demand	6.4	6.5	6.8	7.0	7.3	7.6	7.8	8.0	8.1	8.3	8.3
Unit costs - GDP per worker	6.4	6.5	6.5	6.7	7.1	7.5	8.0	8.4	8.8	9.1	9.4
AWG reference scenario	6.4	6.5	6.7	6.9	7.2	7.4	7.6	7.8	7.9	8.0	8.0
Long-term care spending as % of GDP											
Pure ageing scenario	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.9	2.1	2.3	2.4
Unit costs - GDP per capita	0.9	1.0	1.1	1.3	1.3	1.1	1.5	1.7	1.9	2.0	2.1
Constant disability scenario	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.6	1.8	1.9	1.9
Increase in formal care	0.9	1.0	1.3	1.6	1.9	2.0	2.3	2.7	3.1	3.4	3.6
AWG reference scenario	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.7	1.9	2.1	2.2
Number of dependent people (in thousands)											
Pure ageing scenario	58	59	68	75	84	93	104	116	125	132	135
Unit costs - GDP per capita	58	59	68	75	84	46	104	116	125	132	135
Constant disability scenario	58	58	62	54	67	70	74	80	83	85	85
Increase in formal care	58	59	68	75	84	93	104	116	125	132	135
AWG reference scenario	58	59	65	70	75	81	89	98	104	108	110
of which receiving formal care											
Pure ageing scenario	22	23	26	29	32	36	40	45	49	52	53
Unit costs - GDP per capita	22	23	26	29	32	36	40	45	49	52	53
Constant disability scenario	22	22	24	25	26	27	29	32	34	35	35
Increase in formal care	22	24	37	49	61	68	76	85	92	96	99
AWG reference scenario	22	22	25	27	29	32	34	39	41	43	44
of which receiving informal or no care											
Pure ageing scenario	36	37	42	46	51	57	64	71	76	80	82
Unit costs - GDP per capita	36	37	42	46	51	27	64	71	76	80	82
Constant disability scenario	36	36	38	32	40	42	45	48	50	51	50
Increase in formal care	36	35	31	26	22	25	28	31	34	35	36
AWG reference scenario	36	37	40	42	46	50	54	60	63	65	66
Education spending as % of GDP											
Total	5.3	5.2	4.6	4.3	4.3	4.5	4.7	4.7	4.7	4.8	4.9
of which: Transfers	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Primary	1.3	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.3
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.2	1.2	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.5	1.4	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
of which: Transfers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Tertiary education	1.4	1.4	1.3	1.2	1.1	1.1	1.1	1.2	1.3	1.3	1.2
of which: Transfers	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of students (in thousands)											
Total	384	377	345	321	312	313	314	306	293	284	282
Primary	86	84	81	78	82	82	78	72	69	70	72
Low secondary	87	84	75	73	71	75	76	71	66	64	65
Upper secondary	109	106	88	81	79	79	84	83	77	73	71
Tertiary education	102	103	100	88	80	76	77	81	81	78	73
Memo											
Population aged 15-64 (in thousands)	1405	1408	1410	1388	1333	1284	1245	1208	1170	1115	1065
Unemployment benefit spending as % of GDP	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Slovak Republic

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.2	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.6
Life expectancy at birth											
males	69.7	69.9	70.9	72.0	73.1	74.3	75.3	76.1	76.7	77.2	77.7
females	77.8	77.9	78.7	79.5	80.3	81.1	81.8	82.3	82.7	83.1	83.4
Life expectancy at 65											
males	12.9	13.0	13.5	14.0	14.7	15.4	16.0	16.5	16.9	17.3	17.6
females	16.5	16.6	17.0	17.5	18.1	18.7	19.2	19.6	19.9	20.1	20.4
Net migration (thousand)	-2.3	-2.3	-2.4	-2.3	1.2	4.6	5.1	5.1	5.0	4.9	4.7
Net migration as % of population	-0.04	-0.04	-0.05	-0.04	0.02	0.09	0.10	0.10	0.10	0.10	0.10
Population (million)	5.4	5.4	5.3	5.3	5.3	5.2	5.2	5.1	5.0	4.9	4.7
Population aged 0-14 as % of total	17.6	17.0	15.0	14.3	14.2	14.0	13.5	13.0	12.6	12.6	12.8
Prime age population (25-54) as % of total	44.8	45.2	45.8	45.8	45.6	44.6	42.4	39.3	36.7	34.7	33.3
Working age population (15-64) as % of total	70.9	71.3	72.7	71.9	69.4	67.1	65.7	64.8	63.2	60.4	57.9
Elderly population aged 65+ as % of total	11.5	11.6	12.3	13.7	16.3	18.8	20.8	22.2	24.1	26.9	29.3
Very elderly population aged 80 and over as % of total	2.3	2.4	2.7	3.0	3.1	3.5	4.4	5.9	7.1	7.7	8.0
lerly population aged 55+ as % of working age pop.15-64	2.9	2.9	2.9	3.1	3.3	3.6	3.8	4.0	4.2	4.5	4.7
Macroeconomic assumptions											
Real GDP (growth rate)	3.9	3.9	5.3	4.1	3.3	2.9	2.0	0.8	0.4	0.2	0.3
Labour input (growth rate)	0.4	0.1	1.1	0.6	0.0	-0.1	-0.7	-1.1	-1.5	-1.6	-1.4
Labour productivity (growth rate)	3.5	3.8	4.2	3.5	3.3	3.0	2.7	2.0	1.9	1.8	1.7
TFP (growth rate)	2.0	2.1	2.5	2.0	1.9	1.8	1.8	1.3	1.2	1.2	1.1
Capital deepening (contribution to labour productivity growth)	1.5	1.8	1.7	1.6	1.4	1.2	0.9	0.7	0.7	0.6	0.6
GDP per capita (growth rate)	3.9	4.0	5.4	4.3	3.4	3.1	2.2	1.2	0.8	0.8	0.9
GDP in 2004 prices (in billions of euro)	33	34	44	55	66	77	85	91	93	95	96
GDP per worker	9.8	10.2	13.0	16.5	19.9	23.2	26.1	28.3	29.6	30.8	32.1
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.5	0.0	-0.6	-0.9	-0.6	-0.7	-0.6	-1.2	-1.5	-1.5
Labour force (thousands)	2696	2726	2849	2908	2845	2748	2657	2535	2363	2186	2026
Participation rate (15-64)	70.7	71.1	73.3	76.2	77.8	78.2	78.0	76.6	74.7	74.2	73.9
young (15-24)	42.3	42.7	43.3	44.5	42.9	41.5	41.4	41.6	42.2	42.5	42.2
prime-age (25-54)	89.7	89.9	91.5	92.3	92.9	93.4	93.5	93.4	93.1	92.8	92.8
older (55-64)	30.4	31.9	41.3	50.7	53.4	52.9	55.8	56.5	53.5	52.8	52.0
oldest (65-71)	1.8	1.8	2.2	2.1	2.6	2.5	2.6	2.6	2.8	2.7	2.6
Employment rate (15-64)	58.7	59.2	62.1	66.7	70.2	72.7	72.6	71.2	69.5	69.0	68.7
Employment rate (15-71)	55.0	55.5	58.0	61.4	63.1	64.7	64.7	63.6	61.2	58.8	58.0
Employment growth (15-64)		1.3	1.1	0.6	0.0	-0.1	-0.7	-1.1	-1.5	-1.6	-1.4
Unemployment rate (15-64)	16.9	16.7	15.2	12.5	9.7	7.0	7.0	7.0	7.0	7.0	7.0
Dependency ratios:											
Share of older workers	5.8	6.3	9.5	12.7	13.3	12.8	14.6	17.7	18.8	19.1	18.6
Old-age dependency ratio (1)	16.3	16.3	16.9	19.1	23.5	28.1	31.7	34.2	38.1	44.5	50.6
Total dependency ratio (2)	41.0	40.2	37.5	39.0	44.1	49.0	52.3	54.2	58.1	65.4	72.9
Total economic dependency ratio	140.2	136.8	121.4	108.6	105.3	104.9	109.9	116.6	127.6	139.9	151.5
Economic old-age dependency ratio (15-64)	27.5	27.3	27.0	28.4	33.1	38.2	43.2	47.6	54.3	63.8	73.0
Economic old-age dependency ratio (15-71)	27.4	27.3	26.9	28.3	33.0	38.0	43.0	47.3	54.0	63.4	72.4

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Slovak Republic

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	7.2	7.4	6.7	6.6	7.0	7.3	7.7	7.9	8.2	8.5	9.0
Old-age and early pensions, gross	5.4	5.6	4.8	4.4	4.6	4.8	5.0	5.1	5.5	5.9	6.3
Of which: earnings-related pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Public sector employees, gross	:	:	:	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	1.8	1.8	1.9	2.1	2.3	2.5	2.7	2.8	2.7	2.7	2.7
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	0.0	0.0	0.0	0.1	0.2	0.4	0.7	1.0	1.4	1.9	2.3
Total pension expenditure, gross	7.2	7.4	6.7	6.7	7.2	7.8	8.3	8.9	9.7	10.4	11.2
Social security pensions, net	7.2	7.4	6.7	6.6	7.0	7.3	7.7	7.9	8.2	8.5	9.0
Total pension expenditure, net	7.2	7.4	6.7	6.7	7.2	7.8	8.3	8.9	9.7	10.4	11.2
Social security pensions, contributions	6.5	5.1	5.0	4.9	4.8	4.7	4.7	4.7	4.7	4.6	4.4
Total pension contributions	6.5	6.4	6.3	6.3	6.3	6.3	6.4	6.4	6.4	6.3	6.3
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	0.0	1.2	7.0	12.8	18.9	25.1	31.5	38.4	45.7	52.3	58.0
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	100	100	100	100	100	100	100	100	100	100	100
Total pension expenditure, net / Total pension exp., gross, %	100	100	100	100	100	100	100	100	100	100	100
Social security pensions, number of pensioners , 1000 pers.	1212	1225	1282	1347	1458	1570	1664	1748	1833	1892	1919
All pensions, pensioners , 1000 pers.	1212	1225	1282	1347	1458	1570	1664	1748	1833	1892	1919
Number of pensioners aged 65+ , 1000 pers.	621	631	684	771	910	1040	1136	1189	1254	1350	1420
Share of pensioners below age 65 as % of all pensioners	48.7	48.5	46.6	42.7	37.6	33.7	31.7	31.9	31.6	28.7	26.0
Average gross social sec. pension, 1000€ in 2004 prices	2.0	2.1	2.3	2.7	3.2	3.6	3.9	4.1	4.2	4.3	4.5
Average gross total pensions, 1000€ in 2004 prices	2.0	2.1	2.3	2.7	3.3	3.8	4.3	4.6	4.9	5.2	5.6
Output / Worker, 1000€ in 2004 prices	15.1	15.7	18.1	21.7	25.7	30.0	34.5	38.6	42.5	46.6	50.9
Social sec. benefit ratio	13.0	13.4	12.6	12.4	12.3	12.0	11.4	10.7	9.9	9.1	8.8
Total pension benefit ratio	13.0	13.4	12.7	12.6	12.7	12.7	12.4	12.0	11.6	11.2	11.0
Social security pensions, num of contributors, in 1000	2244	2273	2419	2550	2579	2568	2483	2370	2213	2050	1901
Average social sec. pension contribution, 1000€ in 2004 prices	1.0	0.8	0.9	1.1	1.2	1.4	1.6	1.8	2.0	2.1	2.2
Average total pension contribution, 1000€ in 2004 prices	1.0	1.0	1.1	1.4	1.6	1.9	2.2	2.5	2.7	2.9	3.2
Support ratio (contributors /100 pensioners, social sec. pens.)	185	186	189	189	177	164	149	136	121	108	99
High life expectancy; as % of GDP											
Social security pensions, gross	7.2	7.4	6.7	6.6	7.0	7.4	7.8	8.1	8.5	8.9	9.4
Old-age and early pensions, gross	5.4	5.6	4.8	4.5	4.7	4.9	5.1	5.3	5.7	6.1	6.6
Total pension expenditure, gross	7.2	7.4	6.7	6.7	7.3	7.9	8.5	9.1	9.9	10.8	11.7
All pensions, assets	0.0	1.2	7.0	12.8	19.0	25.2	31.7	38.7	46.2	53.0	59.1
Higher labour productivity; as % of GDP											
Social security pensions, gross	7.2	7.4	6.7	6.5	6.9	7.3	7.6	7.8	8.1	8.4	8.8
Old-age and early pensions, gross	5.4	5.6	4.8	4.4	4.6	4.8	4.9	5.1	5.4	5.8	6.1
Total pension expenditure, gross	7.2	7.4	6.7	6.7	7.2	7.7	8.3	8.8	9.5	10.2	10.9
All pensions, assets	0.0	1.2	7.0	12.7	18.7	24.6	30.8	37.3	44.2	50.3	55.8
Lower labour productivity; as % of GDP											
Social security pensions, gross	7.2	7.4	6.7	6.6	7.0	7.4	7.7	8.0	8.4	8.7	9.2
Old-age and early pensions, gross	7.2	5.6	4.8	4.5	4.7	4.9	5.0	5.2	5.6	6.0	6.4
Total pension expenditure, gross	7.2	7.4	6.7	6.7	7.3	7.9	8.5	9.1	9.9	10.7	11.6
All pensions, assets	0.0	1.2	7.0	12.8	19.2	25.6	32.4	39.6	47.4	54.4	60.6
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	7.2	7.4	6.7	6.5	6.9	7.3	7.6	7.9	8.2	8.5	8.9
Old-age and early pensions, gross	5.4	5.6	4.8	4.4	4.6	4.8	4.9	5.1	5.5	5.8	6.3
Total pension expenditure, gross	7.2	7.4	6.7	6.6	7.2	7.7	8.3	8.9	9.6	10.4	11.2
All pensions, assets	0.0	1.2	7.0	12.8	19.0	25.2	31.6	38.5	45.9	52.5	58.3
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	7.2	7.4	6.7	6.5	6.9	7.3	7.6	7.9	8.2	8.5	9.0
Old-age and early pensions, gross	5.4	5.6	4.7	4.4	4.6	4.8	4.9	5.1	5.5	5.9	6.3
Total pension expenditure, gross	7.2	7.4	6.7	6.6	7.1	7.7	8.3	8.9	9.6	10.5	11.3
All pensions, assets	0.0	1.2	7.0	12.7	18.9	25.1	31.5	38.4	45.7	52.3	58.1
Lower interest rate; as % of GDP											
Social security pensions, gross	7.2	7.4	6.7	6.6	7.0	7.3	7.7	7.9	8.2	8.5	9.0
Old-age and early pensions, gross	5.4	5.6	4.8	4.4	4.6	4.8	5.0	5.1	5.5	5.9	6.3
Total pension expenditure, gross	7.2	7.4	6.7	6.7	7.2	7.7	8.3	8.8	9.4	10.1	10.8
All pensions, assets	0.0	1.2	6.8	12.2	17.8	23.2	28.7	34.4	40.4	45.7	50.4
Higher interest rate; as % of GDP											
Social security pensions, gross	7.2	7.4	6.7	6.6	7.0	7.3	7.7	7.9	8.2	8.5	9.0
Old-age and early pensions, gross	5.4	5.6	4.8	4.4	4.6	4.8	5.0	5.1	5.5	5.9	6.3
Total pension expenditure, gross	7.2	7.4	6.7	6.7	7.3	7.8	8.5	9.1	10.0	10.9	11.9
All pensions, assets	0.0	1.2	7.2	13.3	20.2	27.2	34.8	43.1	52.0	60.1	67.3

: = data not provided

Slovak Republic

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	4.4	4.4	4.6	4.8	5.1	5.3	5.5	5.7	5.9	6.0	6.1
Constant health scenario	4.4	4.4	4.5	4.7	4.8	4.9	5.0	5.2	5.3	5.4	5.5
Death-related costs scenario	4.4	4.4	4.6	4.7	4.9	5.1	5.3	5.4	5.5	5.6	5.7
Income elasticity of demand	4.4	4.4	4.7	5.1	5.4	5.7	6.0	6.2	6.4	6.5	6.7
Unit costs - GDP per worker	4.4	4.4	4.4	4.3	4.5	4.7	5.0	5.3	5.7	6.2	6.6
AWG reference scenario	4.4	4.4	4.7	5.0	5.2	5.5	5.7	5.9	6.0	6.2	6.3
Long-term care spending as % of GDP											
Pure ageing scenario	0.7	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.2	1.3	1.4
Unit costs - GDP per capita	0.7	0.8	0.8	0.8	0.9	0.7	1.0	1.1	1.2	1.3	1.3
Constant disability scenario	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.9	1.0	1.1	1.2
Increase in formal care	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.3	1.5	1.7	1.8
AWG reference scenario	0.7	0.8	0.8	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.3
Number of dependent people (in thousands)											
Pure ageing scenario	127	129	138	150	170	197	227	253	275	293	309
Unit costs - GDP per capita	127	129	138	150	170	89	227	253	275	293	309
Constant disability scenario	127	127	126	103	133	143	156	170	179	184	185
Increase in formal care	127	129	138	150	170	197	227	253	275	293	309
AWG reference scenario	127	128	132	138	152	170	191	212	227	238	247
of which receiving formal care											
Pure ageing scenario	68	69	74	81	93	108	124	138	151	163	171
Unit costs - GDP per capita	68	69	74	81	93	108	124	138	151	163	171
Constant disability scenario	68	68	68	69	73	79	86	94	99	103	104
Increase in formal care	68	72	91	111	137	158	181	203	221	236	248
AWG reference scenario	68	68	71	75	83	94	105	116	125	133	138
of which receiving informal or no care											
Pure ageing scenario	59	60	64	69	77	89	103	115	123	130	137
Unit costs - GDP per capita	59	60	64	69	77	39	103	115	123	130	137
Constant disability scenario	59	59	58	47	60	64	70	76	80	81	82
Increase in formal care	59	57	47	39	34	39	45	51	54	57	60
AWG reference scenario	59	59	61	63	68	77	87	96	101	106	109
Education spending as % of GDP											
Total	3.7	3.6	3.0	2.4	2.2	2.1	2.2	2.2	2.3	2.3	2.4
of which: Transfers	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Primary	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	0.9	0.9	0.7	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.3	1.3	1.1	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8
of which: Transfers	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tertiary education	0.9	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.6	0.6	0.6
of which: Transfers	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Number of students (in thousands)											
Total	1066	1033	884	778	728	712	698	671	636	606	590
Primary	256	244	212	206	204	202	194	180	170	166	166
Low secondary	372	360	285	250	244	243	241	230	214	203	199
Upper secondary	281	271	239	191	170	168	167	165	157	147	140
Tertiary education	158	157	149	131	110	99	96	95	94	90	85
Memo											
Population aged 15-64 (in thousands)	3815	3834	3887	3818	3658	3516	3405	3312	3163	2947	2741
Unemployment benefit spending as % of GDP	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Finland

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Life expectancy at birth											
males	75.3	75.5	76.7	77.8	78.7	79.5	80.2	80.7	81.2	81.6	81.9
females	81.9	82.0	82.8	83.5	84.2	84.8	85.3	85.7	86.0	86.3	86.6
Life expectancy at 65											
males	15.7	15.8	16.6	17.2	17.9	18.4	18.8	19.2	19.4	19.7	20.0
females	19.5	19.6	20.3	20.9	21.4	21.9	22.3	22.6	22.9	23.1	23.3
Net migration (thousand)	6.3	6.2	6.2	6.3	6.1	6.0	6.0	6.0	6.0	6.0	6.0
Net migration as % of population	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.12
Population (million)	5.2	5.2	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.3	5.2
Population aged 0-14 as % of total	17.6	17.5	16.5	16.1	16.1	16.0	15.8	15.4	15.2	15.1	15.3
Prime age population (25-54) as % of total	41.7	41.2	39.4	37.9	36.8	35.8	35.6	35.2	34.9	35.0	34.7
Working age population (15-64) as % of total	66.8	66.7	66.6	63.7	61.3	59.4	58.1	57.6	58.1	58.1	57.8
Elderly population aged 65+ as % of total	15.6	15.8	16.9	20.1	22.6	24.6	26.1	27.0	26.7	26.8	27.0
Very elderly population aged 80 and over as % of total	3.7	3.8	4.5	4.8	5.4	6.0	8.0	9.3	9.9	10.2	10.3
lerly population aged 55+ as % of working age pop.15-64	3.6	3.6	3.8	4.2	4.6	4.9	5.0	5.1	5.0	4.9	4.9
Macroeconomic assumptions											
Real GDP (growth rate)	3.1	3.1	2.2	1.9	1.7	1.5	1.4	1.6	1.5	1.4	1.4
Labour input (growth rate)	0.9	0.8	0.3	-0.3	-0.4	-0.4	-0.3	-0.1	-0.2	-0.3	-0.3
Labour productivity (growth rate)	2.1	2.2	1.9	2.2	2.1	1.9	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	2.1	2.1	1.8	1.7	1.5	1.3	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.0	0.1	0.1	0.5	0.6	0.7	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	2.8	2.8	2.0	1.7	1.6	1.4	1.4	1.8	1.8	1.7	1.6
GDP in 2004 prices (in billions of euro)	150	154	175	193	212	229	246	266	288	309	331
GDP per worker	21.9	22.5	25.2	27.5	29.9	32.2	34.5	37.5	41.0	44.7	48.4
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.1	0.1	-0.7	-0.6	-0.4	-0.4	-0.1	-0.1	-0.3	-0.4
Labour force (thousands)	2609	2620	2656	2636	2600	2549	2504	2482	2469	2438	2399
Participation rate (15-64)	74.8	75.1	75.3	77.2	78.5	78.9	79.2	79.7	79.4	79.4	79.6
young (15-24)	51.7	51.9	51.7	53.2	52.6	52.0	51.9	52.1	52.3	52.5	52.5
prime-age (25-54)	87.8	88.1	89.8	90.9	91.5	92.0	92.2	92.3	92.3	92.2	92.2
older (55-64)	55.0	56.0	56.5	60.6	64.3	64.9	64.8	67.4	67.1	66.8	67.5
oldest (65-71)	6.7	7.0	8.6	11.3	11.9	12.4	12.7	12.4	12.5	13.0	13.0
Employment rate (15-64)	68.5	69.1	70.2	72.2	73.4	73.8	74.1	74.5	74.3	74.3	74.4
Employment rate (15-71)	63.3	63.7	64.5	64.6	65.2	65.7	66.0	66.4	67.1	66.9	66.6
Employment growth (15-64)		1.0	0.3	-0.3	-0.4	-0.4	-0.3	-0.1	-0.2	-0.3	-0.3
Unemployment rate (15-64)	8.5	8.0	6.8	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Dependency ratios:											
Share of older workers	13.9	14.6	16.8	17.2	17.9	17.9	16.5	16.8	17.7	17.6	18.2
Old-age dependency ratio (1)	23.3	23.7	25.4	31.6	37.0	41.3	45.0	46.9	46.0	46.1	46.7
Total dependency ratio (2)	49.7	49.9	50.2	56.9	63.3	68.3	72.2	73.7	72.1	72.1	73.1
Total economic dependency ratio	118.7	117.0	113.8	117.3	122.3	128.2	132.5	133.2	131.8	131.7	132.6
Economic old-age dependency ratio (15-64)	33.2	33.4	35.0	41.5	47.8	53.5	58.1	60.5	59.7	59.6	60.2
Economic old-age dependency ratio (15-71)	32.9	33.1	34.5	40.6	46.6	52.2	56.7	59.0	58.4	58.2	58.7

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Finland

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	10.7	10.4	11.2	12.0	12.9	13.5	14.0	14.1	13.8	13.7	13.7
Old-age and early pensions, gross	7.9	8.0	8.8	9.7	10.7	11.5	12.0	12.2	12.0	12.0	12.1
Of which: earnings-related pensions, gross	6.8	7.0	8.0	9.1	10.1	10.9	11.6	11.8	11.7	11.7	11.9
Private sector employees, gross	4.0	4.1	4.9	5.7	6.4	7.0	7.5	7.8	7.9	8.0	8.2
Public sector employees, gross	2.8	2.9	3.1	3.4	3.7	3.9	4.0	4.0	3.8	3.7	3.6
Other pensions (disability, survivors), gross	2.8	2.4	2.4	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.7
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	10.7	10.4	11.2	12.0	12.9	13.5	14.0	14.1	13.8	13.7	13.7
Social security pensions, net	8.7	8.5	9.1	9.8	10.5	11.0	11.4	11.5	11.3	11.2	11.2
Total pension expenditure, net	8.7	8.5	9.1	9.8	10.5	11.0	11.4	11.5	11.3	11.2	11.2
Social security pensions, contributions	9.1	9.1	9.0	9.7	10.3	10.8	11.2	11.3	11.2	11.2	11.2
Total pension contributions	9.1	9.1	9.0	9.7	10.3	10.8	11.2	11.3	11.2	11.2	11.2
Social security pensions, assets	52.4	53.9	59.3	63.1	66.0	68.2	69.9	70.8	71.3	72.2	72.9
All pensions, assets	52.4	53.9	59.3	63.1	66.0	68.2	69.9	70.8	71.3	72.2	72.9
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	81	81	82	82	82	82	82	82	82	82	82
Total pension expenditure, net / Total pension exp., gross, %	81	81	82	82	82	82	82	82	82	82	82
Social security pensions, number of pensioners , 1000 pers.	1282	1309	1413	1530	1640	1721	1771	1773	1748	1727	1714
All pensions, pensioners , 1000 pers.	1282	1309	1413	1530	1640	1721	1771	1773	1748	1727	1714
Number of pensioners aged 65+ , 1000 pers.	824	834	919	1096	1231	1335	1415	1440	1407	1390	1386
Share of pensioners below age 65 as % of all pensioners	35.7	36.3	35.0	28.3	24.9	22.4	20.1	18.8	19.5	19.5	19.1
Average gross social sec. pension, 1000€ in 2004 prices	12.5	12.3	13.9	15.2	16.6	18.0	19.5	21.1	22.8	24.6	26.5
Average gross total pensions, 1000€ in 2004 prices	12.5	12.3	13.9	15.2	16.6	18.0	19.5	21.1	22.8	24.6	26.5
Output / Worker, 1000€ in 2004 prices	62.7	64.1	70.5	78.3	87.0	96.2	105.2	114.5	124.6	135.7	147.7
Social sec. benefit ratio	19.8	19.1	19.6	19.4	19.1	18.8	18.5	18.4	18.3	18.1	18.0
Total pension benefit ratio	19.8	19.1	19.6	19.4	19.1	18.8	18.5	18.4	18.3	18.1	18.0
Social security pensions, num of contributors, in 1000	2311	2313	2365	2360	2341	2305	2272	2257	2246	2221	2187
Average social sec. pension contribution, 1000€ in 2004 prices	5.9	6.1	6.7	8.0	9.3	10.7	12.1	13.3	14.4	15.7	17.0
Average total pension contribution, 1000€ in 2004 prices	5.9	6.1	6.7	8.0	9.3	10.7	12.1	13.3	14.4	15.7	17.0
Support ratio (contributors /100 pensioners, social sec. pens.)	180	177	167	154	143	134	128	127	128	129	128
High life expectancy; as % of GDP											
Social security pensions, gross	10.7	10.4	11.2	12.1	12.9	13.6	14.1	14.2	14.0	13.9	13.9
Old-age and early pensions, gross	7.9	8.0	8.8	9.8	10.7	11.5	12.1	12.3	12.2	12.2	12.3
Total pension expenditure, gross	10.7	10.4	11.2	12.1	12.9	13.6	14.1	14.2	14.0	13.9	13.9
All pensions, assets	52.4	53.9	59.3	63.1	66.1	68.3	70.1	70.9	71.3	72.1	72.6
Higher labour productivity; as % of GDP											
Social security pensions, gross	10.7	10.4	11.2	12.0	12.7	13.3	13.6	13.6	13.4	13.3	13.3
Old-age and early pensions, gross	7.9	8.0	8.8	9.7	10.5	11.2	11.7	11.8	11.6	11.6	11.7
Total pension expenditure, gross	10.7	10.4	11.2	12.0	12.7	13.3	13.6	13.6	13.4	13.3	13.3
All pensions, assets	52.4	53.9	59.3	62.5	64.6	66.1	67.2	67.5	67.6	68.1	68.4
Lower labour productivity; as % of GDP											
Social security pensions, gross	10.7	10.4	11.2	12.1	13.1	13.8	14.4	14.5	14.3	14.2	14.2
Old-age and early pensions, gross	7.9	8.0	8.8	9.8	10.8	11.7	12.4	12.5	12.4	12.4	12.5
Total pension expenditure, gross	10.7	10.4	11.2	12.1	13.1	13.8	14.4	14.5	14.3	14.2	14.2
All pensions, assets	52.4	53.9	59.4	63.6	67.3	70.3	72.6	74.0	74.9	76.2	77.2
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	10.7	10.4	11.2	11.9	12.8	13.5	13.9	14.0	13.8	13.7	13.8
Old-age and early pensions, gross	7.9	8.0	8.8	9.7	10.6	11.4	12.0	12.2	12.0	12.0	12.1
Total pension expenditure, gross	10.7	10.4	11.2	11.9	12.8	13.5	13.9	14.0	13.8	13.7	13.8
All pensions, assets	52.4	53.9	59.3	62.9	66.0	68.4	70.3	71.3	71.8	72.8	73.5
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	10.7	10.4	11.1	11.8	12.6	13.2	13.7	13.8	13.6	13.5	13.5
Old-age and early pensions, gross	7.9	8.0	8.8	9.7	10.6	11.3	11.9	12.1	12.0	11.9	12.0
Total pension expenditure, gross	10.7	10.4	11.1	11.8	12.6	13.2	13.7	13.8	13.6	13.5	13.5
All pensions, assets	52.4	53.9	59.0	62.5	65.1	67.1	68.9	69.8	70.2	71.0	71.6
Lower interest rate; as % of GDP											
Social security pensions, gross	10.7	10.4	11.2	12.0	12.9	13.5	13.9	14.0	13.8	13.7	13.6
Old-age and early pensions, gross	7.9	8.0	8.8	9.7	10.7	11.4	12.0	12.1	12.0	11.9	12.0
Total pension expenditure, gross	10.7	10.4	11.2	12.0	12.9	13.5	13.9	14.0	13.8	13.7	13.6
All pensions, assets	52.4	53.9	56.6	58.2	59.3	60.1	60.4	60.3	59.9	60.0	60.0
Higher interest rate; as % of GDP											
Social security pensions, gross	10.7	10.4	11.2	12.0	12.9	13.6	14.0	14.1	13.9	13.8	13.8
Old-age and early pensions, gross	7.9	8.0	8.8	9.7	10.7	11.5	12.1	12.2	12.1	12.1	12.2
Total pension expenditure, gross	10.7	10.4	11.2	12.0	12.9	13.6	14.0	14.1	13.9	13.8	13.8
All pensions, assets	52.4	54.3	62.1	67.8	72.8	77.0	80.5	83.0	84.9	87.2	88.8

: = data not provided

Finland

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	5.6	5.6	5.8	6.0	6.2	6.4	6.7	6.9	7.0	7.0	7.0
Constant health scenario	5.6	5.6	5.6	5.7	5.9	6.0	6.2	6.3	6.4	6.4	6.4
Death-related costs scenario	5.6	5.6	5.7	5.9	6.0	6.2	6.4	6.6	6.7	6.7	6.7
Income elasticity of demand	5.6	5.6	5.8	6.1	6.4	6.6	6.9	7.1	7.3	7.3	7.3
Unit costs - GDP per worker	5.6	5.6	5.7	6.0	6.3	6.7	7.1	7.4	7.5	7.5	7.5
AWG reference scenario	5.6	5.6	5.8	6.0	6.2	6.4	6.6	6.9	7.0	7.0	7.0
Long-term care spending as % of GDP											
Pure ageing scenario	1.7	1.7	1.9	2.0	2.3	2.5	3.2	3.6	3.8	3.9	3.9
Unit costs - GDP per capita	1.7	1.8	1.9	2.0	2.2	1.9	3.0	3.4	3.6	3.7	3.7
Constant disability scenario	1.7	1.7	1.8	1.9	2.0	2.2	2.7	3.0	3.0	3.0	3.0
Increase in formal care	1.7	1.8	2.0	2.3	2.6	2.9	3.7	4.2	4.4	4.5	4.6
AWG reference scenario	1.7	1.7	1.9	2.0	2.1	2.4	3.0	3.3	3.4	3.5	3.5
Number of dependent people (in thousands)											
Pure ageing scenario	183	187	206	234	266	303	349	375	381	379	374
Unit costs - GDP per capita	183	187	206	234	266	153	349	375	381	379	374
Constant disability scenario	183	184	190	167	213	228	254	264	261	252	242
Increase in formal care	183	187	206	234	266	303	349	375	381	379	374
AWG reference scenario	183	185	198	217	240	265	301	320	321	316	308
of which receiving formal care											
Pure ageing scenario	109	111	125	139	157	180	217	238	246	246	242
Unit costs - GDP per capita	109	111	125	139	157	180	217	238	246	246	242
Constant disability scenario	109	110	116	122	129	141	165	176	176	172	165
Increase in formal care	109	115	146	180	218	249	291	315	321	321	316
AWG reference scenario	109	111	120	130	143	160	191	207	211	209	204
of which receiving informal or no care											
Pure ageing scenario	74	75	81	96	109	122	132	136	135	133	131
Unit costs - GDP per capita	74	75	81	96	109	51	132	136	135	133	131
Constant disability scenario	74	74	74	63	84	87	89	89	85	81	77
Increase in formal care	74	72	60	54	48	54	58	60	59	59	58
AWG reference scenario	74	75	78	87	96	105	110	113	110	107	104
Education spending as % of GDP											
Total	6.0	6.0	5.6	5.4	5.3	5.3	5.4	5.4	5.3	5.3	5.3
of which: Transfers	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Primary	1.4	1.3	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.4	1.5	1.4	1.4	1.3	1.3	1.4	1.4	1.3	1.3	1.3
of which: Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tertiary education	2.1	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8
of which: Transfers	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of students (in thousands)											
Total	1169	1185	1121	1079	1056	1044	1040	1029	1006	983	967
Primary	388	382	347	344	348	352	350	342	329	321	319
Low secondary	198	201	195	178	177	179	181	180	175	168	165
Upper secondary	300	309	309	291	278	273	274	273	269	262	256
Tertiary education	283	293	269	266	253	240	236	234	233	232	228
Memo											
Population aged 15-64 (in thousands)	3486	3491	3526	3412	3311	3231	3162	3115	3109	3069	3015
Unemployment benefit spending as % of GDP	1.5	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

Sweden

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Life expectancy at birth											
males	78.1	78.2	79.0	79.7	80.4	80.9	81.4	81.8	82.1	82.4	82.6
females	82.4	82.5	83.2	83.8	84.4	84.9	85.4	85.7	86.1	86.4	86.6
Life expectancy at 65											
males	16.7	16.8	17.3	17.8	18.3	18.7	19.0	19.3	19.5	19.8	20.0
females	19.8	19.9	20.4	20.8	21.3	21.7	22.0	22.3	22.5	22.8	23.0
Net migration (thousand)	28.2	27.2	24.1	23.9	22.7	22.1	21.8	21.7	21.5	21.4	21.3
Net migration as % of population	0.31	0.30	0.26	0.26	0.24	0.23	0.22	0.22	0.21	0.21	0.21
Population (million)	9.0	9.0	9.2	9.4	9.6	9.8	9.9	10.0	10.0	10.1	10.2
Population aged 0-14 as % of total	17.8	17.6	16.5	16.8	17.1	17.1	17.0	16.6	16.2	16.1	16.3
Prime age population (25-54) as % of total	40.2	39.9	38.9	38.7	38.7	37.1	36.1	36.2	36.4	36.2	35.5
Working age population (15-64) as % of total	65.0	65.2	65.3	63.1	61.7	60.8	60.0	59.4	59.3	59.4	59.4
Elderly population aged 65+ as % of total	17.2	17.2	18.3	20.1	21.2	22.1	23.0	24.0	24.5	24.4	24.3
Very elderly population aged 80 and over as % of total	5.3	5.3	5.3	5.1	5.3	6.3	7.6	8.0	8.2	8.6	9.1
lerly population aged 55+ as % of working age pop.15-64	6.6	6.6	6.7	7.3	7.8	8.3	8.7	8.8	8.8	8.9	9.1
Macroeconomic assumptions											
Real GDP (growth rate)	2.1	2.7	2.9	2.7	2.5	2.2	1.6	1.8	1.9	1.9	1.8
Labour input (growth rate)	0.0	0.8	0.3	0.2	0.1	0.1	-0.1	0.1	0.2	0.2	0.0
Labour productivity (growth rate)	2.1	1.9	2.6	2.6	2.4	2.1	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.7	1.6	2.1	1.9	1.6	1.4	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.4	0.3	0.5	0.7	0.8	0.7	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.7	2.3	2.5	2.3	2.1	1.8	1.3	1.7	1.7	1.8	1.6
GDP in 2004 prices (in billions of euro)	278	286	329	378	429	481	526	572	626	690	756
GDP per worker	22.6	23.1	26.1	29.3	32.6	35.8	38.7	41.7	45.4	49.7	54.0
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.7	0.0	-0.3	0.1	0.1	-0.2	0.1	0.1	0.2	0.1
Labour force (thousands)	4522	4563	4698	4745	4769	4794	4790	4783	4812	4873	4905
Participation rate (15-64)	77.5	77.7	78.3	80.3	80.8	80.8	80.7	80.7	80.9	81.1	81.1
young (15-24)	48.4	48.7	50.7	54.2	50.9	50.6	51.2	51.0	51.2	51.8	51.7
prime-age (25-54)	88.0	88.2	89.4	90.1	90.6	91.0	91.2	91.3	91.3	91.2	91.2
older (55-64)	71.8	72.5	73.4	75.3	76.3	77.5	77.3	77.6	78.0	79.0	79.0
oldest (65-71)	10.9	11.1	14.3	13.5	13.4	13.7	14.3	13.6	13.9	13.6	14.0
Employment rate (15-64)	73.4	73.8	74.9	76.8	77.3	77.4	77.2	77.2	77.4	77.6	77.6
Employment rate (15-71)	68.1	68.5	68.8	69.1	70.0	70.3	69.9	69.3	69.8	70.4	70.7
Employment growth (15-64)		1.3	0.3	0.2	0.1	0.1	-0.1	0.1	0.2	0.2	0.0
Unemployment rate (15-64)	5.3	5.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Dependency ratios:											
Share of older workers	18.3	18.8	18.7	18.0	18.6	19.9	20.0	18.8	18.0	19.1	20.9
Old-age dependency ratio (1)	26.4	26.4	28.0	31.9	34.4	36.4	38.4	40.5	41.4	41.1	40.9
Total dependency ratio (2)	53.8	53.4	53.2	58.6	62.1	64.6	66.7	68.4	68.7	68.3	68.4
Total economic dependency ratio	109.6	107.7	104.4	106.4	109.7	112.7	115.9	118.1	118.1	116.8	116.9
Economic old-age dependency ratio (15-64)	34.6	34.4	35.2	39.2	42.3	44.8	47.4	50.0	51.1	50.8	50.5
Economic old-age dependency ratio (15-71)	34.2	33.9	34.4	38.2	41.3	43.9	46.2	48.8	49.9	49.7	49.4

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

Sweden

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	10.6	10.4	10.1	10.3	10.4	10.7	11.1	11.4	11.6	11.4	11.2
Old-age and early pensions, gross	7.8	7.6	7.7	8.2	8.5	8.9	9.4	9.8	10.1	10.0	9.9
Of which: earnings-related pensions, gross	6.4	6.5	6.8	7.2	7.4	7.6	7.9	8.2	8.4	8.1	8.0
Private sector employees, gross	3.8	3.9	4.0	4.2	4.1	4.2	4.3	4.4	4.5	4.4	4.3
Public sector employees, gross	2.6	2.6	2.8	3.1	3.2	3.4	3.6	3.8	3.9	3.8	3.7
Other pensions (disability, survivors), gross	2.8	2.8	2.4	2.1	1.9	1.8	1.7	1.6	1.4	1.4	1.3
Occupational pensions, gross	2.3	2.3	2.3	2.5	2.5	2.6	2.8	2.9	2.9	2.7	2.6
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total pension expenditure, gross	12.9	12.6	12.4	12.8	12.9	13.3	13.9	14.3	14.5	14.1	13.9
Social security pensions, net	7.8	7.6	7.4	7.5	7.6	7.8	8.1	8.3	8.5	8.3	8.2
Total pension expenditure, net	9.4	9.2	9.1	9.3	9.4	9.7	10.1	10.5	10.6	10.3	10.1
Social security pensions, contributions	7.7	7.7	7.5	7.4	7.4	7.4	7.4	7.4	7.3	7.3	7.3
Total pension contributions	9.1	9.0	8.8	8.8	8.8	8.7	8.7	8.7	8.6	8.6	8.6
Social security pensions, assets	32.1	33.7	40.0	43.1	45.6	47.7	49.6	49.6	47.7	45.5	44.4
All pensions, assets	38.6	41.5	53.5	60.7	66.0	69.7	72.3	71.6	68.1	63.9	60.9
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	73	73	73	73	73	73	73	73	73	73	73
Total pension expenditure, net / Total pension exp., gross, %	73	73	73	73	73	73	73	73	73	73	73
Social security pensions, number of pensioners , 1000 pers.	2126	2132	2275	2507	2715	2902	3079	3201	3297	3303	3327
All pensions, pensioners , 1000 pers.	2126	2132	2275	2507	2715	2902	3079	3201	3297	3303	3327
Number of pensioners aged 65+ , 1000 pers.	1629	1630	1802	2053	2263	2451	2633	2756	2848	2845	2868
Share of pensioners below age 65 as % of all pensioners	23.4	23.5	20.8	18.1	16.6	15.6	14.5	13.9	13.6	13.9	13.8
Average gross social sec. pension, 1000€ in 2004 prices	13.9	13.9	14.6	15.6	16.4	17.7	18.9	20.4	22.0	23.8	25.6
Average gross total pensions, 1000€ in 2004 prices	16.9	17.0	18.0	19.3	20.4	22.0	23.7	25.6	27.5	29.4	31.5
Output / Worker, 1000€ in 2004 prices	65.4	66.7	73.2	83.2	94.0	104.8	114.9	125.0	136.1	148.0	161.1
Social sec. benefit ratio	21.3	20.9	20.0	18.7	17.5	16.9	16.5	16.3	16.2	16.0	15.9
Total pension benefit ratio	25.9	25.4	24.6	23.1	21.7	21.0	20.6	20.5	20.2	19.9	19.5
Social security pensions, num of contributors, in 1000	:	:	:	:	:	:	:	:	:	:	:
Average social sec. pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Average total pension contribution, 1000€ in 2004 prices	4.7	4.8	5.3	6.0	6.8	7.6	8.2	8.8	9.5	10.3	11.2
Support ratio (contributors /100 pensioners, social sec. pens.)	:	:	:	:	:	:	:	:	:	:	:
High life expectancy; as % of GDP											
Social security pensions, gross	10.6	10.4	10.1	10.3	10.5	10.8	11.2	11.6	11.8	11.7	11.6
Old-age and early pensions, gross	7.8	7.6	7.7	8.3	8.6	9.0	9.5	10.0	10.4	10.3	10.2
Total pension expenditure, gross	12.9	12.6	12.5	12.8	13.0	13.4	14.1	14.6	14.8	14.4	14.2
All pensions, assets	38.6	41.5	53.2	60.2	65.3	68.7	71.1	70.0	66.1	61.3	57.9
Higher labour productivity; as % of GDP											
Social security pensions, gross	10.6	10.4	10.1	10.3	10.3	10.6	10.9	11.3	11.4	11.2	11.0
Old-age and early pensions, gross	7.8	7.6	7.7	8.2	8.4	8.8	9.3	9.8	10.0	9.9	9.8
Total pension expenditure, gross	12.9	12.6	12.4	12.7	12.8	13.1	13.7	14.0	14.1	13.7	13.5
All pensions, assets	38.6	41.5	53.4	60.2	65.0	68.1	70.3	69.3	65.9	61.8	59.3
Lower labour productivity; as % of GDP											
Social security pensions, gross	10.6	10.4	10.1	10.4	10.5	10.8	11.3	11.6	11.8	11.6	11.5
Old-age and early pensions, gross	7.8	7.6	7.7	8.3	8.6	9.0	9.5	10.0	10.3	10.2	10.1
Total pension expenditure, gross	12.9	12.6	12.4	12.9	13.1	13.5	14.2	14.7	14.9	14.5	14.3
All pensions, assets	38.6	41.5	53.5	61.1	67.2	71.6	74.9	74.6	71.3	66.9	63.7
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	10.6	10.4	10.1	10.2	10.3	10.6	11.0	11.4	11.5	11.3	11.2
Old-age and early pensions, gross	7.8	7.6	7.7	8.1	8.4	8.8	9.3	9.8	10.1	9.9	9.9
Total pension expenditure, gross	12.9	12.6	12.4	12.7	12.9	13.3	13.8	14.3	14.4	14.0	13.8
All pensions, assets	38.6	41.5	53.1	60.3	65.8	69.4	72.1	71.5	68.1	64.1	61.4
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Old-age and early pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	10.6	10.4	10.1	10.3	10.4	10.6	11.0	11.3	11.4	11.1	11.0
Old-age and early pensions, gross	7.8	7.6	7.7	8.2	8.5	8.8	9.3	9.7	9.9	9.8	9.6
Total pension expenditure, gross	12.9	12.6	12.4	12.7	12.9	13.1	13.6	13.9	14.0	13.5	13.2
All pensions, assets	38.6	41.2	51.5	56.6	59.8	61.4	62.3	60.3	56.2	52.0	49.4
Higher interest rate; as % of GDP											
Social security pensions, gross	10.6	10.4	10.1	10.3	10.5	10.7	11.2	11.6	11.8	11.7	11.6
Old-age and early pensions, gross	7.8	7.6	7.7	8.2	8.5	8.9	9.5	10.0	10.4	10.3	10.3
Total pension expenditure, gross	12.9	12.6	12.5	12.9	13.1	13.5	14.2	14.8	15.1	14.8	14.6
All pensions, assets	38.7	41.8	55.5	65.1	73.0	79.2	84.5	86.0	84.1	80.6	78.2

: = data not provided

Sweden

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	6.7	6.7	6.8	7.0	7.2	7.3	7.5	7.6	7.7	7.7	7.8
Constant health scenario	6.7	6.7	6.7	6.7	6.8	6.9	6.9	7.0	7.0	7.0	7.0
Death-related costs scenario	6.7	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.5
Income elasticity of demand	6.7	6.7	6.9	7.1	7.4	7.6	7.8	7.9	8.0	8.1	8.1
Unit costs - GDP per worker	6.7	6.7	6.7	6.9	7.2	7.5	7.8	8.0	8.1	8.1	8.1
AWG reference scenario	6.7	6.7	6.8	7.0	7.2	7.4	7.5	7.6	7.7	7.7	7.7
Long-term care spending as % of GDP											
Pure ageing scenario	3.8	3.8	3.7	3.7	3.9	4.5	5.3	5.7	5.8	6.0	6.3
Unit costs - GDP per capita	3.8	3.8	3.8	3.7	3.8	3.3	5.1	5.4	5.5	5.7	6.0
Constant disability scenario	3.8	3.8	3.6	3.4	3.5	3.9	4.5	4.6	4.6	4.6	4.7
Increase in formal care	3.8	3.9	3.9	3.9	4.2	4.9	5.8	6.1	6.2	6.4	6.8
AWG reference scenario	3.8	3.8	3.7	3.5	3.7	4.2	4.9	5.1	5.2	5.3	5.5
Number of dependent people (in thousands)											
Pure ageing scenario	322	324	331	348	379	432	487	514	531	549	569
Unit costs - GDP per capita	322	324	331	348	379	241	487	514	531	549	569
Constant disability scenario	322	320	308	259	310	337	366	372	370	372	378
Increase in formal care	322	324	331	348	379	432	487	514	531	549	569
AWG reference scenario	322	322	320	326	345	384	427	443	450	460	474
of which receiving formal care											
Pure ageing scenario	243	244	248	254	275	321	370	392	404	421	442
Unit costs - GDP per capita	243	244	248	254	275	321	370	392	404	421	442
Constant disability scenario	243	242	232	226	231	258	288	294	293	297	306
Increase in formal care	243	248	270	295	334	383	435	460	475	492	513
AWG reference scenario	243	243	240	240	253	289	329	343	349	359	374
of which receiving informal or no care											
Pure ageing scenario	79	79	84	94	104	111	116	122	126	128	127
Unit costs - GDP per capita	79	79	84	94	104	47	116	122	126	128	127
Constant disability scenario	79	78	76	62	79	79	79	78	77	75	73
Increase in formal care	79	75	61	53	46	49	51	54	56	56	56
AWG reference scenario	79	78	80	86	92	95	98	100	102	102	100
Education spending as % of GDP											
Total	7.3	7.3	6.7	6.5	6.4	6.4	6.6	6.6	6.6	6.5	6.4
of which: Transfers	1.1	1.1	1.0	1.0	0.9	0.9	0.9	1.0	1.0	0.9	0.9
Primary	2.0	1.9	1.7	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	1.2	1.2	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.7	1.7	1.8	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.5
of which: Transfers	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Tertiary education	2.4	2.4	2.2	2.3	2.1	2.0	2.1	2.1	2.1	2.1	2.1
of which: Transfers	0.7	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Number of students (in thousands)											
Total	2100	2111	1991	1943	1961	1984	2025	2048	2033	2009	2005
Primary	745	713	629	687	704	717	737	730	706	701	715
Low secondary	405	420	363	328	361	366	375	385	380	367	365
Upper secondary	540	564	597	515	514	532	538	552	559	549	536
Tertiary education	411	415	402	413	381	367	375	381	388	392	387
Memo											
Population aged 15-64 (in thousands)	5835	5874	5998	5909	5902	5929	5936	5926	5951	6006	6046
Unemployment benefit spending as % of GDP	1.1	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

United Kingdom

Main demographic and macroeconomic assumptions

(BASELINE SCENARIO)

Budgetary Projection: AWG variant population scenario

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic assumptions											
Fertility rate	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Life expectancy at birth											
males	76.4	76.6	77.6	78.5	79.4	80.1	80.7	81.3	81.7	82.1	82.4
females	80.9	81.1	82.1	83.0	83.8	84.5	85.1	85.6	86.0	86.3	86.7
Life expectancy at 65											
males	16.1	16.2	16.9	17.6	18.2	18.7	19.2	19.6	19.9	20.2	20.4
females	19.0	19.1	19.8	20.5	21.1	21.7	22.1	22.5	22.8	23.1	23.3
Net migration (thousand)	139.5	134.5	116.1	107.7	102.8	100.3	99.2	98.8	98.7	98.5	98.5
Net migration as % of population	0.23	0.22	0.19	0.17	0.16	0.16	0.15	0.15	0.15	0.15	0.15
Population (million)	59.7	59.9	60.9	61.9	62.9	63.8	64.4	64.6	64.7	64.5	64.2
Population aged 0-14 as % of total	18.3	18.0	17.0	16.5	16.3	16.1	15.8	15.3	14.9	14.7	14.7
Prime age population (25-54) as % of total	41.5	41.4	41.2	40.9	39.8	38.2	37.2	37.1	36.6	36.0	35.5
Working age population (15-64) as % of total	65.7	65.9	66.3	65.2	64.2	63.0	61.3	59.9	59.2	59.2	58.8
Elderly population aged 65+ as % of total	16.0	16.1	16.6	18.3	19.5	20.9	22.9	24.8	25.8	26.0	26.5
Very elderly population aged 80 and over as % of total	4.3	4.4	4.6	4.8	5.2	5.7	6.8	7.3	8.1	9.2	10.1
lerly population aged 55+ as % of working age pop.15-64	41.5	41.6	42.1	44.3	47.8	51.4	54.4	56.1	57.3	58.1	59.0
Macroeconomic assumptions											
Real GDP (growth rate)	2.6	2.6	3.0	2.6	2.1	1.7	1.3	1.5	1.7	1.5	1.3
Labour input (growth rate)	0.7	0.6	0.7	0.2	0.0	-0.2	-0.4	-0.2	0.0	-0.2	-0.4
Labour productivity (growth rate)	1.9	2.0	2.4	2.3	2.2	1.9	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.2	1.2	1.6	1.5	1.3	1.2	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	0.8	0.7	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	2.2	2.2	2.7	2.2	1.8	1.5	1.2	1.4	1.7	1.6	1.5
GDP in 2004 prices (in billions of euro)	1706	1751	2019	2309	2587	2843	3054	3277	3547	3843	4123
GDP per worker	21.0	21.5	24.4	27.4	30.2	32.8	34.9	37.3	40.3	43.8	47.2
Real interest rate	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Labour force assumptions											
Population growth (working age:15-64)		0.6	0.3	0.0	0.0	-0.2	-0.4	-0.3	-0.1	-0.2	-0.3
Labour force (thousands)	29599	29827	30859	31402	31476	31280	30759	30320	30155	30011	29577
Participation rate (15-64)	75.5	75.6	76.4	77.7	77.9	77.8	77.9	78.3	78.7	78.5	78.3
young (15-24)	63.8	63.9	65.2	65.7	65.2	64.9	64.8	64.8	65.0	65.2	65.2
prime-age (25-54)	84.0	84.3	85.2	85.7	86.2	86.6	86.8	87.0	87.0	87.0	86.9
older (55-64)	57.5	57.6	58.5	62.8	63.6	63.9	63.5	63.8	65.6	65.6	65.2
oldest (65-71)	15.7	16.0	16.1	16.4	16.3	16.4	16.6	16.3	16.1	16.3	16.6
Employment rate (15-64)	71.8	72.0	72.9	74.2	74.3	74.2	74.3	74.7	75.1	74.9	74.7
Employment rate (15-71)	67.0	67.2	67.8	68.0	68.2	67.9	67.1	66.9	67.6	68.2	67.7
Employment growth (15-64)		0.9	0.7	0.2	0.0	-0.2	-0.4	-0.2	0.0	-0.2	-0.4
Unemployment rate (15-64)	4.9	4.8	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Dependency ratios:											
Share of older workers	13.3	13.5	14.0	14.8	16.5	18.0	17.6	16.2	16.4	17.7	18.2
Old-age dependency ratio (1)	24.3	24.4	25.1	28.1	30.3	33.1	37.3	41.3	43.6	44.0	45.0
Total dependency ratio (2)	52.1	51.7	50.8	53.3	55.7	58.7	63.0	66.9	68.8	68.9	70.0
Total economic dependency ratio	111.9	110.9	106.9	106.7	109.6	113.7	119.3	123.4	124.8	125.4	127.5
Economic old-age dependency ratio (15-64)	31.9	31.9	32.3	35.3	38.3	42.0	47.1	52.0	55.0	56.0	57.2
Economic old-age dependency ratio (15-71)	31.3	31.2	31.7	34.4	37.4	40.9	45.7	50.4	53.4	54.4	55.6

LEGENDA:

Share of older workers = Population aged 55 to 64 as % of population aged 15-64

Old-age dependency ratio (1) = Population aged 65 and over as a percentage of the population aged 15-64

Total dependency ratio (2) = Population under 15 and over 64 as a percentage of the population aged 15-64

Total economic dependency ratio= Total population less employed as % of employed population (15-64)

Economic old-age dependency ratio (15-64)=Inactive population aged 65+ as % of employed population (15-64)

Economic old-age dependency ratio (15-71)=Inactive population aged 65+ as % of employed population (15-71)

United Kingdom

EPC-AWG Pension expenditure projections

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Baseline scenario; as % of GDP											
Social security pensions, gross	6.6	6.7	6.6	6.7	6.9	7.3	7.9	8.3	8.4	8.4	8.6
Old-age and early pensions, gross	6.6	6.7	6.6	6.7	6.9	7.3	7.9	8.3	8.4	8.4	8.6
Of which: earnings-related pensions, gross	2.2	2.2	2.5	2.7	3.1	3.3	3.7	3.9	4.1	4.2	4.5
Private sector employees, gross	0.7	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.5	1.7	2.0
Public sector employees, gross	1.5	1.5	1.6	1.8	2.1	2.2	2.5	2.5	2.5	2.5	2.5
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, net	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, contributions	5.7	5.8	5.9	6.1	6.2	6.2	6.3	6.3	6.3	6.3	6.3
Total pension contributions	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Additional indicators											
Social security pensions, net / Social sec. pensions, gross,%	:	:	:	:	:	:	:	:	:	:	:
Total pension expenditure, net / Total pension exp., gross, %	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, number of pensioners , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
All pensions, pensioners , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Number of pensioners aged 65+ , 1000 pers.	:	:	:	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:	:	:	:
Average gross social sec. pension, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Average gross total pensions, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Output / Worker, 1000€ in 2004 prices	59.3	60.5	68.6	77.1	86.2	95.3	104.1	113.3	123.3	134.2	146.1
Social sec. benefit ratio	:	:	:	:	:	:	:	:	:	:	:
Total pension benefit ratio	:	:	:	:	:	:	:	:	:	:	:
Social security pensions, num of contributors, in 1000	:	:	:	:	:	:	:	:	:	:	:
Average social sec. pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Average total pension contribution, 1000€ in 2004 prices	:	:	:	:	:	:	:	:	:	:	:
Support ratio (contributors /100 pensioners, social sec. pens.)	:	:	:	:	:	:	:	:	:	:	:
High life expectancy; as % of GDP											
Social security pensions, gross	6.6	6.7	6.7	6.8	6.9	7.4	8.0	8.4	8.5	8.6	8.8
Old-age and early pensions, gross	6.6	6.7	6.7	6.8	6.9	7.4	8.0	8.4	8.5	8.6	8.8
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher labour productivity; as % of GDP											
Social security pensions, gross	6.6	6.7	6.6	6.7	6.7	7.1	7.7	8.0	8.0	8.1	8.2
Old-age and early pensions, gross	6.6	6.7	6.6	6.7	6.7	7.1	7.7	8.0	8.0	8.1	8.2
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower labour productivity; as % of GDP											
Social security pensions, gross	6.6	6.7	6.6	6.7	7.0	7.5	8.1	8.5	8.7	8.7	8.9
Old-age and early pensions, gross	6.6	6.7	6.6	6.7	7.0	7.5	8.1	8.5	8.7	8.7	8.9
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher employment rate (1 p.p.); as % of GDP											
Social security pensions, gross	6.6	6.7	6.6	6.7	6.8	7.2	7.8	8.2	8.3	8.4	8.5
Old-age and early pensions, gross	6.6	6.7	6.6	6.7	6.8	7.2	7.8	8.2	8.3	8.4	8.5
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher older workers empl. rate (5 p.p.); as % of GDP											
Social security pensions, gross	6.6	6.7	6.6	6.7	6.8	7.2	7.8	8.2	8.3	8.4	8.5
Old-age and early pensions, gross	6.6	6.7	6.6	6.7	6.8	7.2	7.8	8.2	8.3	8.4	8.5
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Lower interest rate; as % of GDP											
Social security pensions, gross	6.6	6.7	6.6	6.7	6.9	7.3	7.9	8.3	8.4	8.4	8.6
Old-age and early pensions, gross	6.6	6.7	6.6	6.7	6.9	7.3	7.9	8.3	8.4	8.4	8.6
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:
Higher interest rate; as % of GDP											
Social security pensions, gross	6.6	6.7	6.6	6.7	6.9	7.3	7.9	8.3	8.4	8.4	8.6
Old-age and early pensions, gross	6.6	6.7	6.6	6.7	6.9	7.3	7.9	8.3	8.4	8.4	8.6
Total pension expenditure, gross	:	:	:	:	:	:	:	:	:	:	:
All pensions, assets	:	:	:	:	:	:	:	:	:	:	:

: = data not provided

United Kingdom

OTHER AGE-RELATED EXPENDITURES as % of GDP

	2004	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Health care spending as % of GDP											
Pure ageing scenario	7.0	7.0	7.2	7.4	7.7	8.0	8.3	8.6	8.9	9.1	9.3
Constant health scenario	7.0	7.0	7.0	7.1	7.1	7.2	7.4	7.6	7.7	7.9	7.9
Death-related costs scenario	7.0	7.0	7.1	7.3	7.5	7.7	8.0	8.3	8.5	8.7	8.8
Income elasticity of demand	7.0	7.0	7.3	7.6	7.9	8.3	8.6	9.0	9.3	9.6	9.7
Unit costs - GDP per worker	7.0	7.0	7.0	7.3	7.6	8.1	8.6	9.2	9.5	9.8	10.0
AWG reference scenario	7.0	7.0	7.2	7.4	7.6	7.9	8.1	8.4	8.7	8.8	8.9
Long-term care spending as % of GDP											
Pure ageing scenario	1.0	1.0	1.0	1.0	1.1	1.2	1.4	1.5	1.7	1.9	2.0
Unit costs - GDP per capita	1.0	1.0	1.0	1.1	1.1	0.9	1.4	1.5	1.6	1.7	1.9
Constant disability scenario	1.0	1.0	1.0	1.0	1.0	1.1	1.2	1.3	1.3	1.4	1.5
Increase in formal care	1.0	1.1	1.4	1.6	2.0	2.2	2.5	2.8	3.0	3.4	3.6
AWG reference scenario	1.0	1.0	1.0	1.0	1.1	1.1	1.3	1.4	1.5	1.6	1.8
Number of dependent people (in thousands)											
Pure ageing scenario	2899	2923	3075	3380	3686	4047	4517	4917	5236	5436	5564
Unit costs - GDP per capita	2899	2923	3075	3380	3686	1901	4517	4917	5236	5436	5564
Constant disability scenario	2899	2880	2809	2329	2895	2974	3156	3262	3343	3399	3408
Increase in formal care	2899	2923	3075	3380	3686	4047	4517	4917	5236	5436	5564
AWG reference scenario	2899	2902	2942	3117	3291	3510	3837	4090	4289	4417	4486
of which receiving formal care											
Pure ageing scenario	718	726	763	820	897	997	1147	1247	1354	1472	1553
Unit costs - GDP per capita	718	726	763	820	897	997	1147	1247	1354	1472	1553
Constant disability scenario	718	717	711	720	744	785	868	906	952	1015	1053
Increase in formal care	718	835	1376	1924	2459	2705	3034	3302	3528	3691	3799
AWG reference scenario	718	721	737	770	820	891	1008	1076	1153	1244	1303
of which receiving informal or no care											
Pure ageing scenario	2181	2198	2312	2559	2790	3050	3371	3671	3882	3963	4011
Unit costs - GDP per capita	2181	2198	2312	2559	2790	1329	3371	3671	3882	3963	4011
Constant disability scenario	2181	2163	2097	1709	2151	2189	2287	2356	2391	2384	2355
Increase in formal care	2181	2088	1700	1456	1228	1342	1484	1616	1709	1744	1765
AWG reference scenario	2181	2180	2205	2347	2471	2620	2829	3014	3136	3173	3183
Education spending as % of GDP											
Total	4.6	4.5	4.2	4.0	4.0	4.0	4.1	4.1	4.0	3.9	4.0
of which: Transfers	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Primary	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low secondary	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper secondary	1.5	1.5	1.4	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.3
of which: Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tertiary education	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
of which: Transfers	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Number of students (in thousands)											
Total	16352	16250	15647	15292	15151	15153	15171	14970	14577	14244	14155
Primary	4428	4367	4118	4128	4131	4170	4136	4013	3891	3832	3818
Low secondary	2340	2307	2162	2024	2037	2045	2065	2043	1977	1918	1893
Upper secondary	7166	7159	6964	6784	6702	6687	6734	6694	6516	6339	6311
Tertiary education	2418	2417	2404	2357	2281	2251	2235	2220	2192	2155	2132
Memo											
Population aged 15-64 (in thousands)	39218	39461	40413	40389	40418	40201	39488	38716	38307	38226	37763
Unemployment benefit spending as % of GDP	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3