### ADEQUACY AND SUSTAINABILITY OF PENSIONS

Pensions — mostly from pay-as-you-go public schemes — are the main source of income of older people in Europe. Retired people drawing a pension are a significant and growing part of the EU population (about 124 million or a quarter of the total). Pensions affect public budgets and labour supply in major ways and these impacts must be considered in pension policy. But the purpose of pensions is to deliver retirement incomes that are adequate to allow older people to enjoy decent living standards and economic independence.

#### 1. Key statistical indicators







Source: Eurostat, EU-SILC [ilc\_peps01]. Data extraction date: 1 March 2013

The *adequacy* of pensions is measured by their ability to prevent poverty, the degree to which they replace income before retirement and how they compare to the average incomes of people below pensionable age. The at-risk-of-poverty or social exclusion measure is directly linked to the poverty reduction target of the Europe 2020 strategy. Figure 1 above illustrates the pension adequacy challenge for Member States by showing their position compared to the EU-27 average for the rate of people aged 65+ at risk of poverty or social exclusion. Countries above the average are listed (in red) to the right and countries below the average (in blue) to the left of the vertical line indicating the EU average (EU-27=0).

#### Figure 2. The EMPLOYMENT challenge

Average duration of working life and employment rate of older workers (55-64), 2011



Source: Eurostat [lfsi\_dwl\_a]. Data extraction date: 3 March 2013 Eurostat [lfsi\_emp\_a]. Data extraction date: 4 March 2013

A standard indicator for the *employment* challenge linked to pensions is the employment rate of older workers aged 55-64. Another key indicator is the effective labour market exit age. But the underpinning of pension systems in terms of a good balance between contributory years and retirement years, or between contributors and beneficiaries, is not just affected by the employment rate at the end of working life. Entry ages and the stability of employment over the working life are also key factors. A new indicator of wider relevance is the average duration of working life.

In Figure 2 the pension-related employment challenge is illustrated by the extent to which Member States' performance deviates from the EU averages for the duration of working life and the employment of older workers. Underperformers are listed to the left (below average) and overperformers (above average) to the right of the vertical line indicating the EU average (EU-27=0).



Figure 3. The SUSTAINABILITY challenge Long-term growth in pension expenditure as a percentage of GDP (2010-2060)

Source: European Commission. Directorate-General for Economic and Financial Affairs, (2012), Fiscal Sustainability Report 2012. European Economy, 8/2012, Brussels

Public pension expenditure in the EU-27 is projected to increase by 1.4 p.p. of GDP over the period 2010-2060 to a level of 12.7% of GDP. In the euro area, an increase by 1.8 p.p. to a level of 14.0% of GDP is projected. Yet, the range of projected changes in public pension expenditure is very large across Member States (Figure 3). On the one hand, an increase of 9.4 p.p. of GDP is projected for Luxembourg, while Slovenia and Cyprus project a public pension expenditure increase by more than 7 p.p. of GDP. In another three Member States (Slovakia, Belgium and Malta) public spending on pensions is projected to grow between 5 to 7 p.p. of GDP. On the other hand, spending is expected to decrease over the projection horizon in Latvia, with a projected decline of 3.8 p.p. of GDP; a decrease is also projected for Poland, Estonia, Denmark and Italy.

#### 2. Assessment of main challenges in the Member States

Broadly speaking, benefits above the at-risk-of-poverty threshold and decent living standards for retired people have been achieved in most EU Member States, although significant gaps remain. In some countries the current adequacy of pensions is a growing source of concern. Overall, people over 65 have an average income of 89% of that of the population aged 0-64 (2011 figures, see Table 1 for indicators of current adequacy).

Life expectancy at age 65 in the EU-27 is expected to increase by around five years until 2060 (from 17.2/20.7 (m/w) years in 2010 to 22.4/25.6 (m/w) years in 2060). Rising longevity, declining fertility rates, and the resulting transition from large to smaller cohorts of working-age present a challenge to pension achievements in all Member States. The *demographic* challenge to the sustainability of pension systems of an ageing population is no longer far-off. As the first baby-boomer cohorts are now reaching retirement age, the population aged 60+ is currently growing by around two million each year, almost twice the increase observed in the late 1990s and early 2000s. At the same time, the number of people of prime working age (20-59) will fall every year over the coming decades as the baby-boomers are replaced by much smaller cohorts.

With people living longer and the working-age population shrinking, the adequacy of pensions cannot be guaranteed as the required increase in expenditure would be unsustainable, unless both women and men also stay longer in employment and save more for their retirement. Pension systems can help to optimise labour supply over working life, particularly for older workers, by setting strong work incentives in their entitlement rules and restricting access to early retirement. Furthermore, employment and adequacy questions are linked. Working to a higher age may help to maintain or even increase the future level of replacement rates.

If pension and retirement systems sufficiently and sensibly reward working longer and discourage early retirement they can contribute to ensuring that longer working careers become the key avenue to better adequacy of pensions. This is already the case in several Member States, but in others, these incentives are still ill-adjusted.

But pension entitlement rules are only one side of the challenge. The other side is very much about age management in workplaces and labour markets as obstacles can be found in ageadverse aspects of work organisation, promotion, remuneration, access to training, and hiring and firing practices. Moreover, barriers to longer working lives tend to be different for women and men. Therefore governments need to work with the social partners to obtain the necessary changes, including in collective agreements.

#### The sustainability challenge

Pension costs make up a large part of public expenditure (EU-27 in 2010: 11.3%, variance 6.8-15.3%; Table 2) and are a major factor in the present and medium- to longer-term public budget position. Sustainability relates to the fiscal and financial balance between revenues and liabilities (and the ratio of workers/contributors to pensioners/beneficiaries) in pension schemes. Pension reforms are needed to correct for the negative impact of population ageing on this balance. Thanks to reforms already enacted or planned in most Member

States, the medium and long-term sustainability of public pension expenditure has been improved, but remains a concern in many cases.<sup>1</sup>

#### The employment challenge

Postponing retirement and pension take-up by working longer — and thus contributing and building entitlements for longer — is the key route to simultaneous improvements in the sustainability and adequacy of pensions.

The success of pension reforms that raise the pensionable age and possibly link this or the benefit level to gains in life expectancy depends on their underpinning through workplace and labour market measures that enable and encourage both women and men to work longer. Incentive structures in pensions can influence age management practices at work only to a certain degree. Tackling the employment challenge will require determined efforts to promote longer working lives through employment and industrial relations policies.

Whereas the trend towards ever earlier retirement has been reversed in all Member States over the last decade, premature labour market exit is still a major problem in several countries. In 2010, the average *exit age* varied between 59.7 in Slovakia and 64.9 years in Ireland (EU-27: 61.1 years; Table 2). The exit age was below 61 in eight Member States (MT, AT, HU, SL, FR, PL, LU, SK), while nine had exit ages at or above 63 (IE, CY, SE, EE, DE, PT, UK, LT, NL).

In 2011, the *employment rate* for workers aged 55-64 ranged from 31.2% in SL to 72.3% in SE, with the EU-27 average at 47.4% (Table 2, Figure A1). In eight countries, less than 40% of the older workers were in employment (BE, EL, IT, LU, HU, MT, PL, SI). The employment rate of females aged 55-64 ranged from a very low 13.8% in MT to 68.9% in SE, with the EU-27 average at 40.2%. In five countries, the employment rates of older females were below 30% (EL, IT, MT, PL, SL).

Barriers to female older workers' employment exist in pension systems (e.g. lower pensionable age for women), in work-life balances (e.g. insufficient access to childcare and eldercare), as well as in workplaces and labour markets (e.g. poor age and gender management). In 2011, the gender gap in the duration of working lives was still significant, with women (31.9 years) participating on average 5.5 years less in the labour market than men (37.4 years) in the EU-27 (Figure A2). This average masks substantial variation across Member States: While the gap is less than one year in the Baltic countries (and even negative in LT), it amounts to 16.8 years in MT, 10.3 years in IT and 9.0 years in EL.

In 2010, remaining life expectancy at 65 ranged from 15.8 in BG to 21.7 in FR in 2010 (Table 2).

#### The adequacy challenge

#### Poverty Protection

The *at-risk-of-poverty rate* (at 60% of median income) and the *share of people living in severe material deprivation* are the two main indicators to assess the adequacy at the floor of

<sup>&</sup>lt;sup>1</sup> See the note on Public finance sustainability for detailed information.

pension systems, i.e. their ability to prevent or mitigate poverty. In 2011, the at-risk-ofpoverty rate for the 65+ varied from 36.9% in CY to 4.5% in HU (EU-27: 15.9%; Figure A3). Single women thereby faced a substantially higher risk of poverty than single men (M/W 65+: 13.2%/18.1%).

Severe material deprivation (SMD) among people aged 65+ ranged from less than 1% in LU, NL and SE to 28.6% in RO, 29.0% in LV, and as much as 53.7% in BG. A significantly higher incidence of SMD among (single) women is observed in those Member States with an overall high rate of SMD above 10% (Figure A4.1). The EU average for the age group 65+ was 7.2%, which is below the EU average for the population aged less than 65 years (9.1%; Figure A4.2). While in 22 Member States the incidence of severe material deprivation is lower among the elderly as compared to the population aged 0-64, it is significantly higher in a few countries (BG, LT, PL). Differences between women and men thereby increase with age (M/W 0-64: 9.0%/9.2%; M/W 65+: 5.6%/8.4%).

The rate of people *at-risk-of-poverty or social exclusion* combines the two measures and is used as the Europe 2020 poverty reduction target. In the EU-27, 20.5% of the population aged 65 or above were at risk of poverty or social exclusion in 2011, with this share ranging from 4.7% in LU and 6.9% in NL to 40.4% in CY and 61.1% in BG (Figure A5). Five countries had rates above 30%: BG, CY, RO, LV, LT. A higher risk of poverty and social exclusion is observed for people aged 75 or above (Figure A6). In comparison with the 65+ age group, the EU-27 average for the 75+ age group increases by 2 percentage points (pp.) to 22.5%, and this increase is larger than 5 pp. in CY, SE, FI, DK, PT, RO, UK. Among the population at age 75 or above, gender differences in the risk of poverty or social exclusion are most pronounced (EU-27: M: 18.5%, W: 25.3%), with this difference amounting to more than 10 pp. in 11 Member States (SI, SE, FI, RO, EE, LV, SK, BG, PL, CZ, LT).

#### Income Replacement

Currently, pensions allow retired Europeans to enjoy living standards that are close to those of the rest of the population and in some countries generally higher than for other groups on transfer incomes. The two common indicators in this area relate to the *relative share* in income per person that people aged 65+ obtain. In 2011 the *median relative income ratio*<sup>2</sup> for the 65+ ranged from 0.65 in CY to 1.05 in LU (EU-27: 0.89) The *aggregate replacement ratio*<sup>3</sup> in 2011 ranged from 0.38 in CY to 0.74 in LU. The EU average stood at 0.54 (see Table 1 for both indicators).

Another key indicator of the adequacy of pension benefits is the theoretical replacement rate. It seeks to measure the ability of pensions to replace income before retirement by using representative cases (e.g. average wage earners retiring at 65 after 40 years of work and contributions; Table 3). Current replacement rates (2010) are lower for women in almost all countries where the pensionable age differed for men and women (BG, CZ, EE, EL, IT, LT, MT, AT, PL, RO, SL, SK, UK). A main raison for this gender difference is the earlier retirement of women, with net rates as much as 5 pp. lower for women in BG, IT, CZ and PL. As reforms tend to strengthen the link between contributions and benefits and increase the

<sup>&</sup>lt;sup>2</sup> The relative median income ratio measures the average overall income of older people (those aged 65 and more) relative to the average incomes of the younger age group (population aged 0-64).

<sup>&</sup>lt;sup>3</sup> The aggregate replacement ratio is a measure of the median individual gross pension (including old-age and other pension benefits of people aged 65-74) relative to the median individual gross earnings (of people aged 50-59).

number of years required to receive a full pension, lower pensionable ages are no longer benefiting women. Hereafter earlier retirement for women simply imply means less years in which to build pension and more years of exposure to the erosion of the value of pension benefits.

One crucial aspect of the strength of work incentives in pension schemes is the *bonus/penalty of working longer/retiring earlier*. Delaying retirement results in a higher net theoretical replacement rate in most Member States (increases of more than 10 pp. for the average earner with respect to retirement at 65 occur in DE, EE, SK, LT, PT and HU; Figure A7). Early retirement (or shorter careers) result in lower replacement rates (drops of more than 10 pp. for the average earner occur only in LV, ES, FR, SK and CZ). However, the incentives are not symmetrical: in the majority of Member States, the increase in replacement rates by working two years longer are larger than the reduction in replacement rates incurred by working two years less. Disincentives for early retirement are thus not as strong as incentives to work longer.

#### Future Adequacy

Scenarios for the future are modelled as changes in the gross and net theoretical replacement rates 2010-2050 (Table 3, column 1). While recent public pension reforms have tended to improve or maintain the poverty protection function, most of the reforms will result in lower replacement rates (pensions relative to previous earnings) in the future. As illustrated in Figure A8, changes in theoretical replacement rates range from drops of more than 30 pp. in EL and PL to increases of 5-10 pp. in BG and CY. Five countries expect drops of 25 pp. or more (EL, PL, CZ, RO, LV); another six expect drops of between 15 and 20 pp. (IT, PT, FR, HU, LU, IE). For another group of Member States no significant changes in net theoretical replacement rates are expected between 2010 and 2050 (NL, DK, UK, LT, BE, AT).

Trends in the future pension adequacy can be assessed not only with the help of theoretical replacement rates, which look at future income replacement for specific hypothetical individuals, but also with indicators derived from expenditure projections. Unlike the theoretical replacement rates, the *benefit ratio*<sup>4</sup> and *gross average replacement rate*<sup>5</sup> reflect the overall pension expenditure (Table 3, columns 2 and 3). In general, the projections for the 2010-2060 time horizons confirm the trend of declining replacement rates in the future (pp. change in benefit ratio and gross av. replacement rate in the EU-27: -8.5 and -8.6, respectively). As the concept of the indicators, their coverage of pension schemes and their time horizons are different, results can differ substantially across indicators and are not directly comparable. Still, in combination the three indicators allow for a broader assessment of the expected evolution of old-age incomes in the future.

The expected reduction in replacement rates is, however, based on the assumption that the retirement age will remain unchanged. Working to a higher age may help maintain or even increase the future level of replacement rates. This effect is illustrated in Figure A9 below,

<sup>&</sup>lt;sup>4</sup> The benefit ratio is the average benefit of public pension or public and private pensions, respectively, as a share of the economy-wide average wage (gross wages and salaries in relation to employees).

<sup>&</sup>lt;sup>5</sup> The gross average replacement rate is calculated as the average first retirement pension as a share of the economy-wide average wage, as reported by Member States in ad-hoc pension questionnaires. For further information see the 2012 Pension Adequacy Report.

which compares the gross theoretical replacement rates received by people retiring currently at 65 after a 40-year career with replacement rates for people retiring in the future at a higher or lower age (at 67, after a 42-year career with all other factors assumed alike, or at 63 after 38 years). In some countries pension systems will be rather unresponsive to people working two years longer (e.g. EL, LU, IE, MT), in others it would be possible to recoup most or all of the drop in replacement rates through this route (HU, RO, PT, ES, SK, FI), whereas in a few countries people would not only recoup the net replacement rate but raise it beyond its level in 2010 (SE, SI, NL, DK, LT).

Complementary retirement savings can also help secure adequate replacement rates in the future. Some countries have introduced measures to complement their public pay-as-you-go pension schemes with private funded schemes, but there is considerable scope for further development of complementary pension savings opportunities in many Member States. This illustrated in figures A10.1 and A10.2, which focus on the role of income from pre-funded schemes in the total pension package in 2010 and 2050.

#### **ANNEX. Statistical indicators**

#### Table 1. Current adequacy

	People (65 years or over) at risk of poverty or social exclusion, percentage of total population, 2011 (1)		s or over) erty or ision, of total 2011 Females	Share of people (65 years or over) at risk of poverty or social exclusion in total polulation at risk of poverty or social exclusion, 2011 (2)	At risk of poverty rate of older people (65 years or over), Cut-off point: 60% of median equivalised income after social transfers, 2011 (3)	Severe material deprivation of older people (65 years or over), percentage of total population, 2011 (4)	Relative median income ratio (65+), 2011 (5)	Aggregate replacement ratio, 2011 (6)
EU-27	20,5	17,0	23,1	14,7	15,9	7,2	0,89	0,54
Belgium	21,6	21,1	21,9	16,7	20,2	2,6	0,74	0,44
Bulgaria	61,1	56,0	64,6	22,0	30,9	53,7	0,72	0,41
Czech Republic	10,7	4,9	14,9	10,6	6,6	5,4	0,82	0,53
Denmark	16,6	15,0	17,9	14,8	16,0	1,1	0,72	0,42
Germany	15,3	13,0	17,4	15,4	14,2	3,2	0,90	0,51
Estonia	17,0	9,5	20,6	12,4	13,1	5,8	0,75	0,54
Ireland	12.9*	13.2*	12.7*	4.9*	10.6*	2.7*	0.86*	0.47*
Greece	29,3	26,5	31,5	17,9	23,6	13,1	0,81	0,45
Spain	22,3	21,0	23,3	13,9	20,8	2,6	0,83	0,56
France	11,5	9,5	12,9	9,9	9,7	2,9	1,01	0,64
Italy	24,1	20,3	27,0	17,3	17,0	10,9	0,92	0,55
Cyprus	40,4	36,6	43,6	21,8	36,9	6,0	0,65	0,38
Latvia	32,9	25,8	36,2	14,2	8,9	29,0	0,86	0,53
Lithuania	32,5	27,3	35,1	16,1	12,1	24,9	0,87	0,52
Luxembourg	4,7	4,2	5,1	3,6	4,7	0,0	1,05	0,74
Hungary	18,0	12,7	21,1	9,2	4,5	15,5	1,00	0,59
Malta	21,5	23,0	20,3	14,8	18,1	4,6	0,80	0,47
Netherlands	6,9	6,5	7,1	6,5	6,5	0,4	0,87	0,46
Austria	17,1	12,0	20,8	17,2	16,0	2,0	0,93	0,60
Poland	24,7	19,0	28,1	12,4	14,7	15,4	0,94	0,55
Portugal	24,5	21,9	26,4	18,2	20,0	7,7	0,87	0,56
Romania	35,3	29,9	38,9	13,1	14,1	28,6	1,01	0,64
Slovenia	24,2	13,6	31,1	18,9	20,9	6,8	0,87	0,47
Slovakia	14,5	9,2	17,8	9,6	6,3	9,7	0,86	0,62
Finland	19,8	12,4	25,2	19,2	18,9	2,1	0,78	0,50
Sweden	18,6	9,9	25,3	21,1	18,2	0,6	0,77	0,58
United Kingdom	22,7	19,0	25,8	16,9	21,8	1,3	0,81	0,48

Notes:

Data extraction date: 1 March 2013

\* 2010 data

Between the 9 worst performing Member States

(1) (2) Source: [ilc\_peps01]

(3) Source: SILC [ilc\_pnp1]

(4) Source: [ilc\_mddd11]

(5) Persons aged 65 years and over compared to persons aged less than 65 years. Source: SILC [ilc\_pnp2]

(6) Ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years. Source: SILC [ilc\_pnp3]

	Effective exit age from the labour market, 2010	Life expectancy at 65, 2011 (2)			Employment rate of older workers (55-64), 2011 (3)			Pension expenditure, % of GDP, 2010	Pp change in pension expenditure (% of GDP),
	(1)*	Total	Males	Females	Total	Males	Females		2010-2060
EU-27	62,1	19,4*	17,5*	21*	47,4	55,2	40,2	11,3	1,4
Belgium	61,4	19,6*	17,6*	21,3*	38,7	46,0	31,6	11,1	5,1
Bulgaria	61,7	15,8	14,0	17,3	43,9	49,9	38,8	9,9	1,1
Czech Republic	61,1	17,6	15,6	19,2	47,6	58,9	37,2	9,1	2,7
Denmark	62,9	18,8	17,3	20,1	59,5	63,8	55,3	10,1	-1,1
Germany	63,5	19,8	18,2	21,2	59,9	67,0	53,0	10,8	2,6
Estonia	63,6	17,9	14,7	20,0	57,2	57,3	57,1	8,9	-1,1
Ireland	64,9	19,4	17,9	20,7	50,0	57,1	42,9	7,5	4,1
Greece	62,3	19,6	18,5	20,6	39,4	52,3	27,3	13,6	1,0
Spain	62,9	20,9	18,7	22,8	44,5	53,9	35,6	10,1	3,6
France	60,1	21,7	19,3	23,8	41,5	44,1	39,1	14,6	0,5
Italy	61,3	20,7*	18,6*	22,4*	37,9	48,4	28,1	15,3	-0,9
Cyprus	64,4	19,3	18,2	20,3	54,8	69,2	40,8	7,6	8,7
Latvia	63,3	16,6	13,4	18,7	50,5	51,7	49,7	9,7	-3,8
Lithuania	62,3	17,0	14,0	19,2	50,1	54,2	47,0	8,6	3,5
Luxembourg	60,0	19,8	17,8	21,6	39,3	47,0	31,3	9,2	9,4
Hungary	60,5	16,6	14,3	18,3	35,8	39,8	32,4	11,9	0,5
Malta	60,9	19,4	17,6	20,9	31,7	50,1	13,8	10,4	5,5
Netherlands	63,1	19,8	18,1	21,2	56,1	65,8	46,4	6,8	1,7
Austria	60,7	20,1	18,1	21,7	41,5	50,6	32,9	14,1	2,0
Poland	60,1	17,9	15,4	19,9	36,9	47,8	27,3	11,8	-2,2
Portugal	63,5	20,1	18,1	21,8	47,9	54,2	42,1	12,5	0,2
Romania	61,4	16,1	14,3	17,5	40,0	48,9	32,2	9,8	3,7
Slovenia	60,3	19,3	16,9	21,1	31,2	39,5	22,7	11,2	7,1
Slovakia	59,7	16,8	14,5	18,4	41,4	52,6	31,5	8,0	5,2
Finland	62,6	19,9	17,7	21,7	57,0	56,8	57,2	12,0	3,2
Sweden	64,2	20,0	18,5	21,3	72,3	75,7	68,9	9,6	0,6
United Kingdom	63,5	20,0	18,6	21,2	56,7	64,2	49,6	7,7	1,5
* 2010 data									

#### Table 2. Employment and sustainability

#### \* - 2010 data

Between the 9 worst performing Member States

(1) Source: Commission services (DG EMPL)

(2) Source: Eurostat [demo\_mlexpec]. Data extraction date: 4 March 2013

(3) The employment rate of older workers is calculated by dividing the number of persons in employment and aged 55 to 64 by the total population of the same age group. The indicator is based on the EU Labour Force Survey. The survey covers the entire population living in private households and excludes those in collective households such as boarding houses, halls of residence and hospitals. Employed population consists of those persons who during the reference week did any work for pay or profit for at least one hour, or were not working but had jobs from which they were temporarily absent.

Source: Eurostat [Ifsi\_emp\_a]. Data extraction date: 4 March 2013

	Net Theore	tical Replac (1)	ement Rate	Benefit	3enefit ratio (public pensions) (2)			Gross average replacement rate at retirement (public pensions)		
	2010	2050	Pp. change, 2010-2050	2010	2060	Pp. change, 2010 - 2060	2010	2060	Pp. change, 2010 - 2060	
EU 27	:	:	:	44,7	36,2	-8,5	48,0	39,4	-8,6	
Belgium	74,0	75,9	1,9	39,2	37,3	-1,9	:	:	:	
Bulgaria	62,3	67,5	5,2	46,1	37,8	-8,3	49,8	46,5	-3,3	
Czech Republic	70,6	43,1	-27,5	26,2	25,4	- <mark>0,</mark> 8	28,5	27,1	-1,4	
Denmark	69,4	67,3	-2,1	35,8	30,8	-5,0	1	1	1	
Germany	59,1	63,7	4,6	47,0	38,5	-8,5	40,5	35,1	-5,4	
Estonia	46,2	50,1	3,9	38,7	20,0	-18,7	36,0	20,4	-15,6	
Ireland	85,8	69,0	-16,8	1	1	1	37,3	38,0	0,7	
Greece	121,3	87,0	-34,3	35,9	27,6	-8,3	59,3	49,6	-9,7	
Spain	94,5	86,5	-8,0	55,3	44,8	-10,5	72,4	56,0	-16,4	
France	77,6	58,8	-18,8	39,8	31,7	-8,1	58,8	53,2	-5,6	
Italy	89,5	69,1	-20,4	48,5	43,6	-4,9	79,5	68,1	-11,4	
Cyprus	57,0	70,0	13,0	43,3	44,3	1,0	45,3	53,3	8,0	
Latvia	80,4	55,3	-25,1	1	1	:	48,2	15,2	-33,0	
Lithuania	61,5	60,3	-1,2	38,7	35,1	-3,6	38,2	36,0	-2,2	
Luxembourg	99,9	83,0	-16,9	58,7	50,7	-8,0	78,3	57,7	-20,6	
Hungary	100,1	75,0	-25,1	31,2	26,5	-4,7	38,4	40,8	2,4	
Malta	79,7	70,5	-9,2	51,2	47,4	-3,8	58,5	51,2	-7,3	
Netherlands	105,0	101,0	-4,0	1	1	:	1	:	:	
Austria	85,0	88,7	3,7	42,3	35,5	- <mark>6</mark> ,8	47,7	37,3	-10,4	
Poland	75,5	43,3	-32,2	46,7	19,1	-27,6	49,1	18,7	-30,4	
Portugal	85,8	65,9	-19,9	1	1	:	56,9	49,4	-7,5	
Romania	70,7	45,0	-25,7	38,7	26,9	-11,8	41,6	28,6	-13,0	
Slovenia	59,2	53,7	-5,5	19,2	17,3	-1,9	:	:	:	
Slovakia	74,6	65,4	-9,2	43,7	28,9	-14,8	50,7	29,5	-21,2	
Finland	68,9	62,0	-6,9	49,4	44,1	-5,3	51,8	43,7	-8,1	
Sweden	60,3	53,0	-7,3	35,3	25,6	-9,7	35,4	22,7	-12,7	
United Kingdom	77,2	75,1	-2,1	:	:	:	5,1	6,9	1,8	

#### Table 3. Future adequacy: forward looking indicators

Notes:

(1) Total: the ratio of the retirement pension received by a hypothetical worker (male) working a full working life (40 contributory years) and retiring at 65 as a percemtage of the individual earnings at the moment of take-up of pensions. Net TRR is calculated as net of income taxes and employee contributions.

Source: Commission services, SPC (Pension Adequacy in the European Union 2010-2050)

(2) Average benefit of public pensions (public and private pensions in case of BG, DK, DE, EE, ES, LV, LT, LU, HU, NL, PL, PT, RO, SI, SK, and SE) as a share of the economy-wide average wage (gross wages and salaries in relation to employees).

Source: Commission services, EPC (The 2012 Ageing Report, page 335).

(3) The "Gross Average Replacement Rate" is calculated as the average first pension as a share of the economy-wide average wage at retirement.

Source: Commission services, EPC (The 2012 Ageing Report, page 336).

### Table 4. Pensionable ages and complementary pensions

	PENSIO	ONABLE AGES		COMPLEMENTARY PENSIONS			
	Pensionable age for M/W in 2009	Pensionable age for M/W in 2020	Further increases in the pensionable age for M/W after 2020		Pension funds, assets % of GDP 2009	Share of mand funded & occupational pensions in gross TRR 2010	Share of mand funded & occupational pensions in gross TRR 2050
Belgium	65/65	65/65		Belgium	3,3 (v)	10	22
Bulgaria	63/60	65/63		Bulgaria	n/a	0	22
Czech Republic	62/ 56y8m- 60y8m (a)	63y10m/ 60y6m- 63y10m (a)	67+/67+ in 2044 (b)	Czech Republic	4.6	0	0
Denmark	65/65	66/66	67+/67+ (c)	Denmark	43,3 (w)	28	55
Germany	65/65	65y9m/65y9m	67/67 (in 2029)	Germany	5,2 (x)	0	27
Estonia	63/61	64/64	65/65 (in 2026)	Estonia	6.9	0	45
Ireland	66/66	66/66	68/68 (in 2028)	Ireland	44.1	62	53
Greece	65/60	67/67	67+/67+ (f)	Greece	0	0	0
Spain	65/65	66y4m/66y4m	67+/67+ (k)	Spain	8.1	0	0
France	60-65/60-65 (e)	62-67/62-67 (e)		France	0,8 (v)	0	0
Italy	65y4m/60y4m	66y11m/66y11m	67+/67+ (f)	Italy	4.1		
Cyprus	65/65	65+/65+ (g)		Cyprus	n/a	0	0
Latvia	62/62	63y9m/63y9m	65/65 (in 2025)	Latvia	n/a	0	39
Lithuania	62y6m/60	64/63	65/65 (in 2026)	Lithuania	n/a	4	13
Luxembourg	65/65	65/65		Luxembourg	2.2	0	0
Hungary	62/62	64/64	65/65 (in 2022)	Hungary	13.1	0	36
Malta	61/60	63/63	65/65 (in 2026)	Malta	n/a	0	0
Netherlands	65/65	66y8m/66y8m	67+/67+ (h)	Netherlands	129.8	52	52
Austria	65/60	65/60	65/65 (in 2033)	Austria	4.9	0	0
Poland	65/60	67/62	67/67 (in 2040)	Poland	13.5	0	46
Portugal	65/65	65/65		Portugal	13.4	0	0
Romania	63y4m/58y4m	65/61	65/63 (in 2030)	Romania	n/a	0	25
Slovenia	63/61	65/65		Slovenia	2.6	0	0
Slovakia	62/57y6m- 61y6m (a)	62+/62+ (i)	62+/62+ (i)	Slovakia	4,7 (v)	0	48
Finland	63-68/63-68 (j)	63-68/63-68 (j)		Finland	76.8	0	0
Sweden	61-67/61-67 (j)	61-67/61-67 (j)		Sweden	7,4 (v, y)	24	39
United Kingdom	65/60	66/66	67/67 (in 2028)	United Kingdom	73 (z)	38	41

#### Notes

Notes:	Notes:					
(a) Depending on the number of children raised	(v) 2008					
(b) Increased by 2 months annually until further amendments						
(c) Adjusted to life expectancy gains every 5 years, starting 2030	(w) Autonomous occupational pension funds only. In addition to these plans,					
(d) Adjusted to life expectancy gains every 3 years, starting 2021	total assets managed by occupational pension insurance contracts amounted t					
(e) If minimum insurance period completed - and if not completed	99,3% of GDP					
(f) Linked to life expectancy	(x) Autonomous occupational pension funds only. In addition to these plans,					
(g) Adjusted to life expectancy gains as of 2018	total assets managed by occupational pension insurance contracts amounted to					
(h) Adjusted to life expectancy gains every year, starting 2022	99,3% of GDP					
(i) Adjusted to life expectancy gains as of 2017	(y) Autonomous occupational pension funds only. In addition to these plans,					
(j) Flexible retirement age linked to benefit level	total assets managed by premium pension system amounted to 8,9% of GDP					
(k) Possibility to adjust to life expectancy	and assets managed by occupational pension insurance contracts to 38,9% of GDP in 2008					

(z) OECD estimate.



Figure A1. Employment rate of older workers (55-64 years), 2011

Source: Eurostat [lfsi\_emp\_a]. Data extraction date: 4 March 2013



Figure A2. Average duration of working life, 2011

Source: Eurostat [lfsi\_dwl\_a]. Data extraction date: 3 March 2013



Figure A3. At-Risk-of-Poverty Rate (65 years or over), 2011

Source: Eurostat, EU-SILC [ilc\_pnp1], Data extraction date: 5 March 2013 \* Notes: IE – 2010 data; Cut-off point: 60% of median equivalised income after social transfers





Source: Eurostat [ilc\_mddd11]; Data extraction date: 6 March 2013 Note: IE – 2010 data





Source: Eurostat, EU-SILC [ilc\_mddd11]. Data extraction date: 3 March 2013 Notes: LV – break in series, IE – 2010 data, EU-27 – estimated

# Figure A5. People (65 years or over) at risk of poverty or social exclusion, percentage of total population, 2011



Source: Eurostat, EU-SILC [ilc\_peps01], Data extraction date: 1 March 2013 \* Note: IE - 2010 data

# Figure A6. People (<u>75</u> years or over) at risk of poverty or social exclusion, percentage of total population, 2011



Source: Eurostat, EU-SILC [ilc\_peps01], Data extraction date: 5 March 2013 \* Note: IE - 2010 data





Source: Indicators Subgroup of the SPC, 2010 - 2050 Theoretical Replacement Rates exercise

### Figure A8. Trends in net and gross TRR between 2010-2050, the 'base-case' scenario (sorted according to ascending percentage point changes in net TRR)



Source: Indicators Subgroup of the SPC, 2010 - 2050 Theoretical Replacement Rates exercise



Figure A9. Projected impact on net replacement rates of working longer in the future

Source: Indicators Subgroup of the SPC, 2010 - 2050 Theoretical Replacement Rates exercise







