

Pensions Policies in the European Union A Burden for New Members?

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“It is clear that if present public pension payments are left untouched, the pension schemes in some countries would impose major burdens on their societies in the next century, either through requiring higher taxation or other spending cuts, or by rapidly increasing public debt burdens resulting from high primary deficits, compounded by explosive debt dynamics.”

Ageing Populations, Pension Schemes and Government Budgets: How do they affect saving?

W.Liebfriz, D. Roseveare, D. Fore, and E. Wurzel.

Paris: OECD Working Papers, vol.III, no.68. (1995)

“As the UK’s outstanding public pension liabilities are substantially below those of other EU members, there would be a risk that if the United Kingdom joined a single currency British taxpayers could be called upon to help finance the pay-as-you-go pension obligations of the other EMU members, or suffer the consequences of being tied to interest rates on the single currency that were forced up by market pressures of financing certain countries’ inherited pension commitments.

...the extent of un-funded pension liabilities in certain of our European partner countries casts serious doubt upon the long-term sustainability of their finances.”

Unfunded Pension Liabilities in the European Union.
House of Commons Social Security Committee, 1996

“In the next decade, the EU badly needs to raise its annual growth rates above the dismal averages of the 1990s. If they are left unreformed, current pension systems will be a ball and chain holding back improvements in competitiveness and growth, or even undermining both.”

European Pensions: An Appeal for Reform.

The European Round Table of Industrialists, 2000

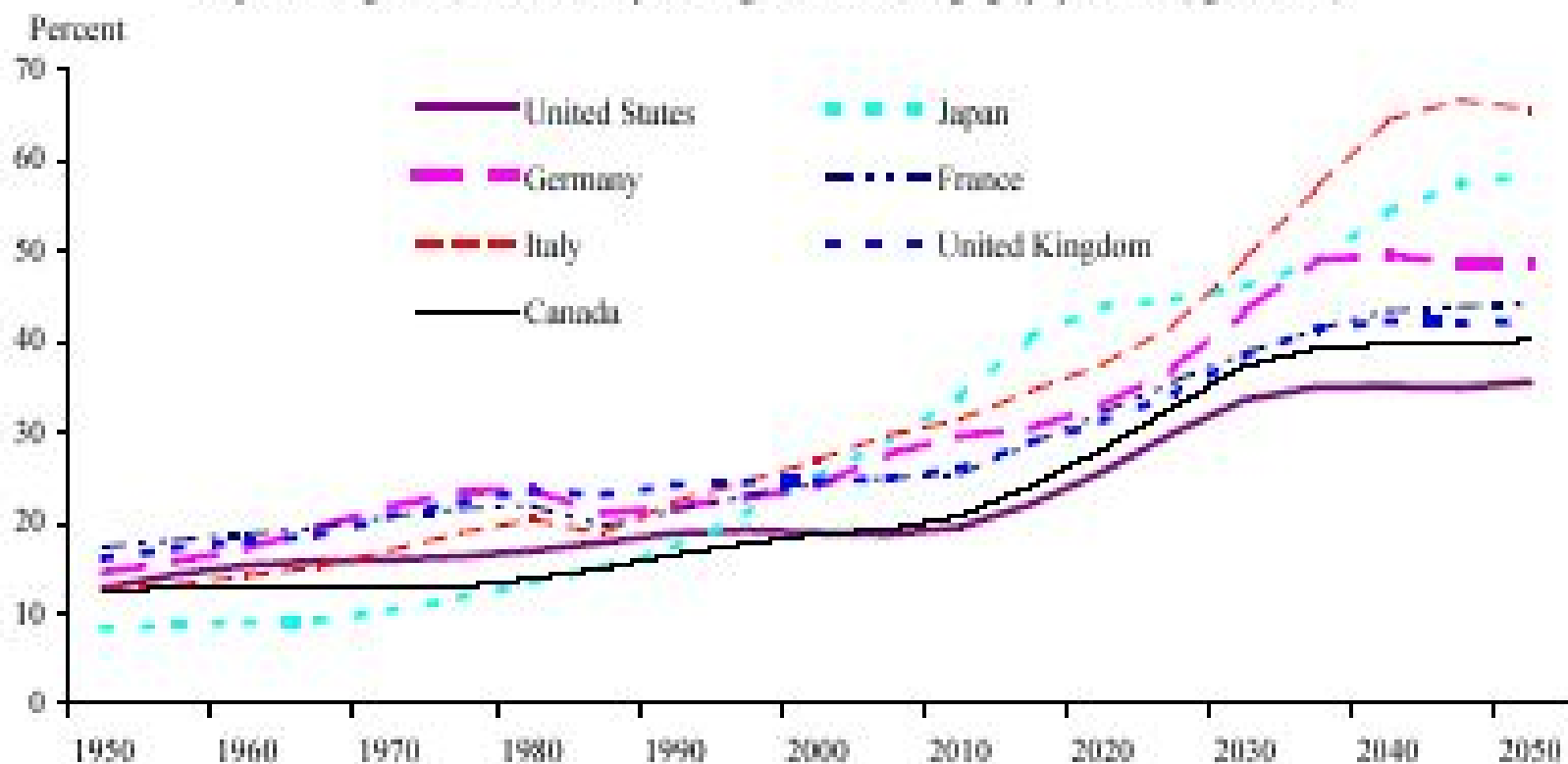
“If pension payments were not reformed, but led to higher deficits, some countries would not respect their obligations under the growth and stability pact; which in turn could lead to inflationary pressures; which in turn would result in the ECB having to set higher interest rates with negative impact not only on investment, but also on growth and employment, which are the basis of sustainable pension systems...Clearly the reply to these questions – pay more, work longer, get less, is not an easy message to sell.”

Defusing Europe's Pensions Timebomb.

Internal Market Commissioner Frits Bolkestein, 6th February 2001.

Figure 3. Elderly dependency ratios in G7 countries

Population aged 65 and over as a percentage of the working age population (aged 15-64)



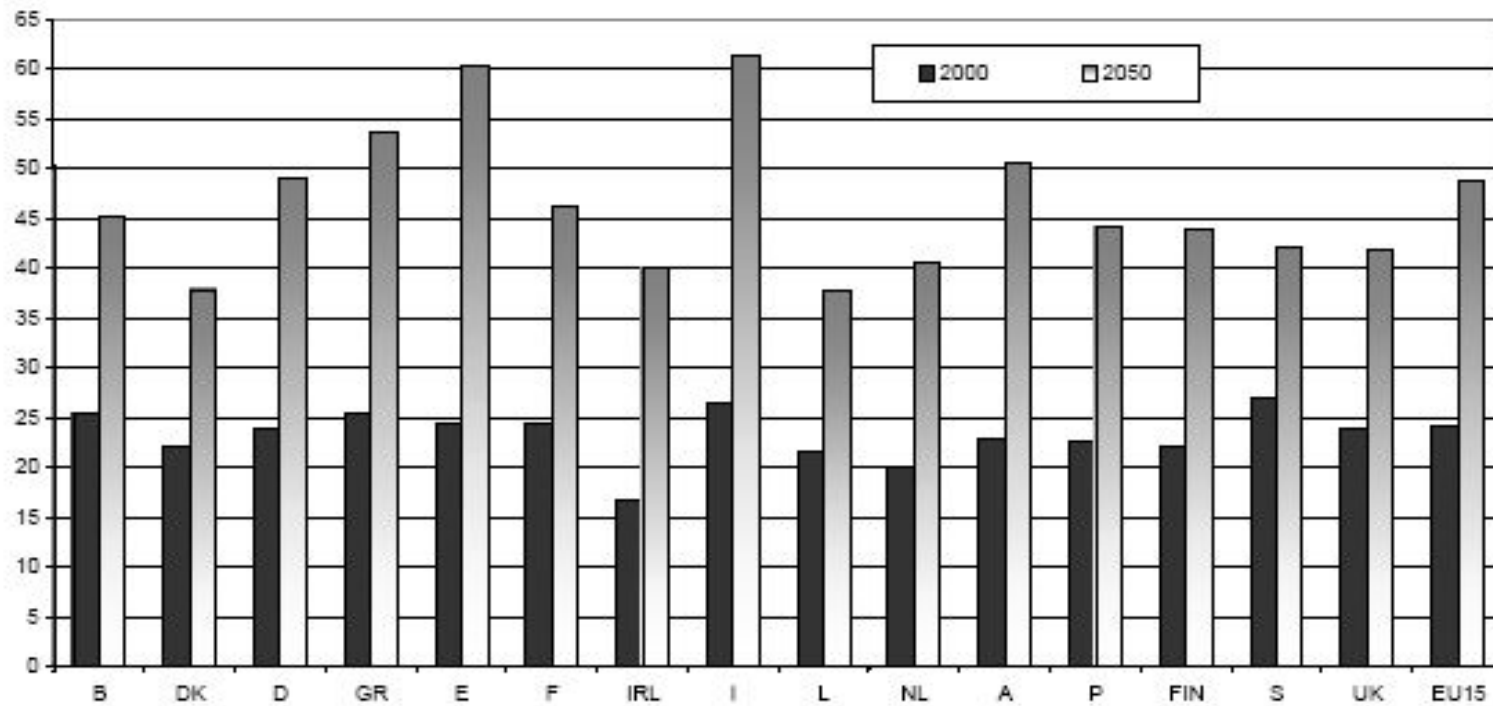
Source: United Nations Population Division, *World Population Prospects: The 1998 Revision*.

Table 10.4. Old-age dependency ratio in the EU countries

	2000	2010	2020	2030	2040	2050
Belgium	28.1	29.4	35.6	45.8	51.3	49.7
Denmark	24.1	27.2	33.7	39.2	44.5	41.9
Germany	26.0	32.9	36.3	46.7	54.7	53.3
Greece	28.3	31.6	35.8	41.7	51.4	58.7
Spain	27.7	28.9	33.1	41.7	55.7	65.7
France	27.2	28.1	35.9	44.0	50.0	50.8
Ireland	19.4	19.1	24.5	30.3	36.0	44.2
Italy	28.8	33.8	39.7	49.2	63.9	66.8
Luxembourg	23.4	26.2	31.0	39.8	45.4	41.8
Netherlands	21.9	24.6	32.6	41.5	48.1	44.9
Austria	25.1	28.8	32.4	43.6	54.5	55.0
Portugal	25.1	26.7	30.3	35.0	43.1	48.7
Finland	24.5	27.5	38.9	46.9	47.4	48.1
Sweden	29.6	31.4	37.6	42.7	46.7	46.1
United Kingdom	26.4	26.9	32.0	40.2	47.0	46.1
EU15	26.7	29.8	35.1	43.8	52.4	53.4

Source: EPC (2000).

Old-age dependency ratio ¹⁾



1) Number of people aged 65 years and over as a percentage of people aged 15–64. Source: Eurostat, Population projections — Baseline scenario.

Table 10: Old-age dependency ratio (persons aged 65+ as a percentage of persons aged 15-64)

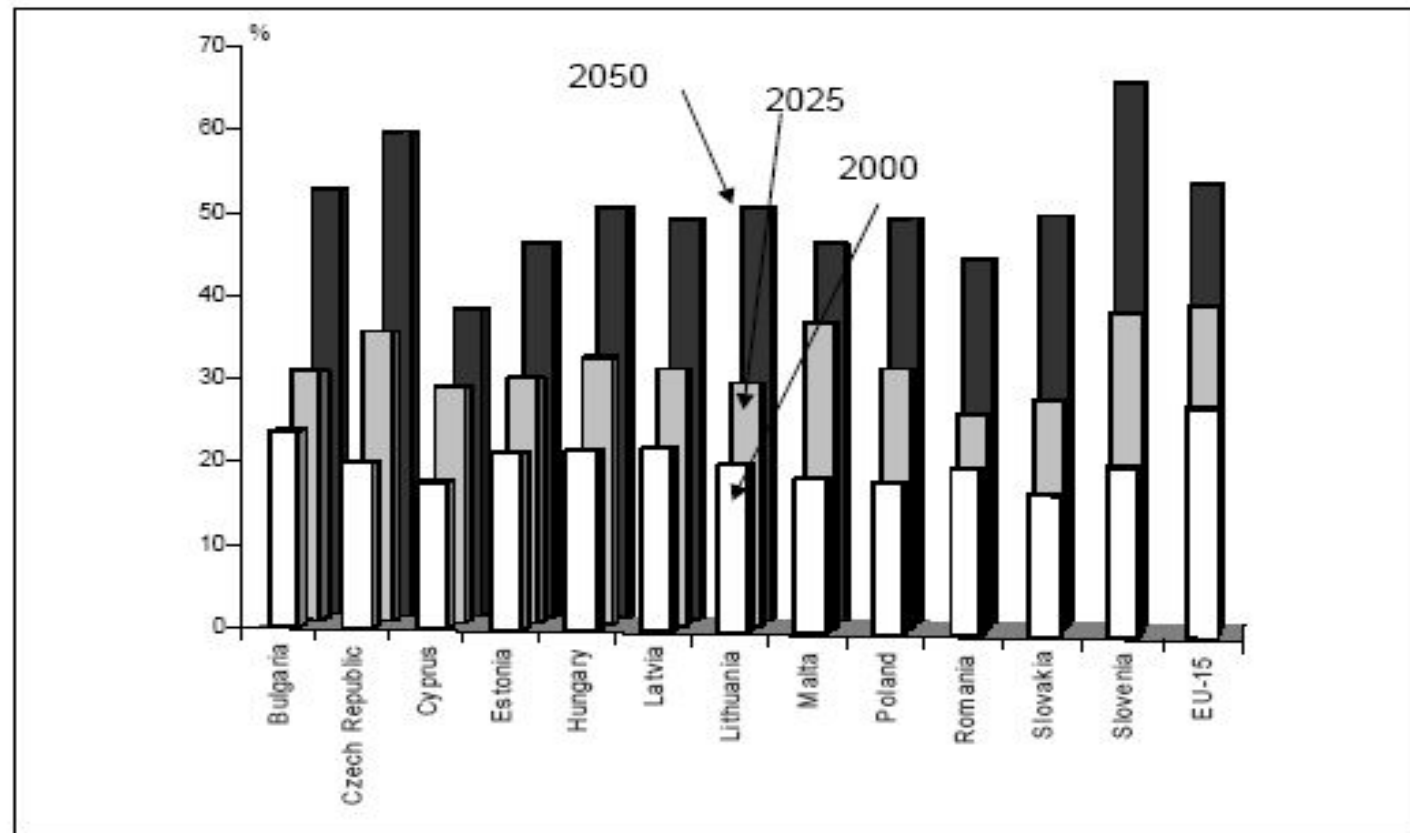
	2000	2025	2050	Change 2000/50	
				Absolute	%
Czech Rep	20	36	61	41	207
Cyprus	18	29	39	21	119
Estonia	21	30	47	26	122
Hungary	21	33	51	30	139
Latvia	22	31	50	28	128
Lithuania	20	29	51	31	156
Malta	18	37	47	28	154
Poland	18	31	50	32	180
Slovakia	17	27	50	33	200
Slovenia	20	38	66	46	233
Bulgaria	24	31	54	30	127
Romania	19	26	45	25	130
EU-15	24	36	49	24	100

Source: UN population projections 2002. AMECO for the EU-15.

Note: The old-age dependency ratio is defined as persons aged over 65 as a percentage of the working-age population (aged 15-64). Similar trends are expected for the economic dependency ratio, which expresses the population aged 15 and over not employed as a percentage of the number of persons employed.

Source: Handler, H. (2003)

Graph 1: Old-age dependency ratio, 2000-50



Source: UN population projections 2002 (EU-15: Eurostat population projections 1995 - baseline scenario). Note: The old-age dependency ratio is defined as persons aged 65 or over as a percentage of the working-age population (aged 15-64).

Source: Handler, H. (2003)

Table 1: Projections for spending on public pensions as a share of GDP –current policy scenario

	2000	2005	2010	2020	2030	2040	2050	change 2000-50
BE	10,0	9,5	9,9	11,4	13,3	13,7	13,3	3,3
DK	10,5	11,3	12,5	13,8	14,5	14,0	13,3	2,9
DE	11,8	11,4	11,2	12,6	15,5	16,6	16,9	5,0
EL	12,6	12,4	12,6	15,4	19,6	23,8	24,8	12,2
ES	9,4	8,8	8,9	9,9	12,6	16,0	17,3	7,9
FR	12,1	12,2	13,1	15,0	16,0	15,8		3,8
IE	4,6	4,5	5,0	6,7	7,6	8,3	9,0	4,4
IT	13,8	13,8	13,9	14,8	15,7	15,7	14,1	0,3
LU	7,4	7,4	7,5	8,2	9,2	9,5	9,3	1,9
NL	7,9	8,3	9,1	11,1	13,1	14,1	13,6	5,7
AT	14,5	14,5	14,9	16,0	18,1	18,3	17,0	2,5
PT	9,8	10,9	11,8	13,1	13,6	13,8	13,2	3,4
FI	11,3	10,9	11,6	12,9	14,9	16,0	15,9	4,7
SE	9,0	9,2	9,6	10,7	11,4	11,4	10,7	1,7
UK	5,5	5,3	5,1	4,9	5,2	5,0	4,4	-1,1

Source: EPC (2001)

Table 12: Public pension expenditures in 2000-50 (% of GDP)

	2000	2030	2050	Change 2000-50
Cyprus	8	11.9	14.8	+6.8
Czech Republic	7.8 ⁵	-	14.6 ⁵	+6.8
Estonia	6.9 ^{2,4}	-	-	
Hungary	6.0 ⁵	-	7.2 ⁵	+1.2
Latvia	9.8 ⁴	-	-	
Lithuania	5.3	6	7	+1.7
Malta	5.4 ^{2,4}	-	-	
Poland	10.8	9.6	9.7	-0.9
Slovakia	7.9 ⁴	-	-	
Slovenia	13.2	19.7	18.1	+4.9
Bulgaria	9.1 ^{2,4}	-	-	
Romania	6.4	7.8	8.2	+1.8
EU-15	10.4	13.0	13.3	+2.9

Sources: If not explicitly indicated, data are based on the 2002 Pre-Accession Economic Programmes.

Notes: -: not available; ¹)2002; ²)2001; ³) 2000; ⁴) According to Gesellschaft für Versicherungswissenschaft und -gestaltung e.V. (which in turn draws on national statistics). ⁵ OECD. Since definitions of public pension expenditures are not identical for each country, caution is warranted when making comparisons.

Source: Handler, H. (2003)

Advantages and disadvantages of pay-as-you-go (PAYG) pensions

Advantages:

- simplicity and transparency
- low administration costs
- progressive redistribution
- wide coverage
- do not inhibit the mobility of labour
- low risk

Disadvantages:

- budgetary burden
- no “choice”
- over-commitment to a specific level of pensions
- resistance to tax funding

Advantages and disadvantages of fully-funded (FF) pension

Advantages:

- higher returns from professional equity investment
- the saver has independence and choice
- increases savings and growth
- promotes the development of financial markets and effective corporate governance
- automatically adjusts the level of pensions to available returns

Disadvantages:

- regressive impact on distribution of income
- high administration costs
- limited coverage
- uncertain returns (high risk)
- need for social security safety net
- in some cases limit the mobility of labour (occupational pensions)

Notation

P = average pension per head

N = number of pensioners

S = average workers' savings rate (pensioners' saving rate = 0)

T = average workers' tax rate (pensions are not taxed)

Y = output per head of the working population (productivity)

W = working population

I = investment

G = government expenditure

FA = stock of financial assets

E = net private saving

$$\mathbf{SYW - PN = I}$$

(1)

$$\mathbf{SYW - PN = I} \quad \mathbf{(1)}$$

$$\mathbf{\alpha(s + y + w) + (1 - \alpha)(p + n) = i} \quad \mathbf{(2)}$$

Where $\mathbf{\alpha = SYW/(SYW - PN)}$

the lower case roman letters indicate rates of growth

$$\mathbf{SYW - PN = I} \quad (1)$$

$$\mathbf{\alpha(s + y + w) + (1 - \alpha)(p + n) = i} \quad (2)$$

if $i = y + w$, then

$$\mathbf{-\beta s - y - w + p + n = 0} \quad (3)$$

Where $\mathbf{\alpha = SYW/(SYW - PN)}$
 $\mathbf{-\beta = \alpha/(1 - \alpha) \text{ or } SYW/PN}$

the lower case roman letters indicate rates of growth

$$\mathbf{SYW - PN = I} \quad (1)$$

$$\mathbf{\alpha(s + y + w) + (1 - \alpha)(p + n) = i} \quad (2)$$

if $i = y - w$, then

$$\mathbf{-\beta s - y - w + p + n = 0} \quad (3)$$

$$\mathbf{n - w = y - p + \beta s} \quad (4)$$

Where $\mathbf{\alpha = SYW/(SYW - PN)}$
 $\mathbf{-\beta = \alpha/(1 - \alpha) \text{ or } SYW/PN}$

the lower case roman letters indicate rates of growth

$$\mathbf{RYW - \delta PN = I + G} \quad \mathbf{(5)}$$

Where **R = S + T**
 δ is the share of funded pensions

$$\mathbf{RYW - \delta PN = I + G} \quad \mathbf{(5)}$$

if $G = (1 - \delta)PN$, then

$$\mathbf{\alpha(r + y + w) + (1 - \alpha)(p + n) = i} \quad \mathbf{(6)}$$

Where

$$\mathbf{R = S + T}$$

δ is the share of funded pensions

$$\mathbf{r = s\gamma + t(1 - \gamma)}$$

$$\mathbf{\gamma = S/(S + T)}$$

the lower case roman letters indicate rates of growth

$$\mathbf{RYW - \delta PN = I + G} \quad \mathbf{(5)}$$

if $G = (1 - \delta)PN$, then

$$\mathbf{\alpha(r + y + w) + (1 - \alpha)(p + n) = i} \quad \mathbf{(6)}$$

and if $i = y + w$, then

$$\mathbf{-\beta r - y - w + p + n = 0} \quad \mathbf{(7)}$$

Where

$$\mathbf{R = S + T}$$

δ is the share of funded pensions

$$\mathbf{r = s\gamma + t(1 - \gamma)}$$

$$\mathbf{\gamma = S/(S + T)}$$

$$\mathbf{-\beta = RYW/PN}$$

the lower case roman letters indicate rates of growth

$$\mathbf{RYW - \delta PN = I + G} \quad \mathbf{(5)}$$

if $G = (1 - \delta)PN$, then

$$\mathbf{\alpha(r + y + w) + (1 - \alpha)(p + n) = i} \quad \mathbf{(6)}$$

and if $i = y + w$, then

$$\mathbf{-\beta r - y - w + p + n = 0} \quad \mathbf{(7)}$$

$$\mathbf{n - w = y - p + \beta r} \quad \mathbf{(8)}$$

Where

- $R = S + T$**
- δ is the share of funded pensions**
- $r = s\gamma + t(1 - \gamma)$**
- $\gamma = S/(S + T)$**
- $-\beta = RYW/PN$**

the lower case roman letters indicate rates of growth

Changes in holdings of financial assets

Suppose $I = 0$

then equation (1)

$$\mathbf{SYW - PN = I} \quad \mathbf{(1)}$$

can be re-written

$$\mathbf{\Delta FA_w + \Delta FA_p = 0}$$

$$\mathbf{or, net saving (E) = 0} \quad \mathbf{(9)}$$

Changes in holdings of financial assets

Similarly equation (5) becomes

$$\Delta FA_W + \Delta FA_P = \Delta FA_G \quad (10)$$

If $I > 0$, then (9) and (10) become

$$\Delta FA_W + \Delta FA_P = I \quad (9a)$$

or net savings (E) = investment

$$\Delta FA_W + \Delta FA_P - I = \Delta FA_G \quad (10a)$$

or $E - I = G - T$

The key questions

- 5. How can the rate of growth of labour market participation, n , be increased?**
- 7. Is y a function of s ? Or does increased saving today increase investment and growth?**
- 9. Does the development of financial markets increase investment and growth?**
- 11. Will increases in s that result in the increase of foreign assets secure future revenues for pensioners? Is this “immigration without immigrants”?**
- 13. Will the realisation of pensioners’ assets result in deterioration in financial market performance? Will this deterioration spread from those countries with funded pensions to those with pay-as-you-go systems?**
- 15. What should be the components of a European pensions policy?**