

# HAS GROWTH IN FUNDED PENSIONS IN EUROPE LIVED UP TO ITS PROMISE?

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Population ageing has prompted global concerns over security of incomes in old age. European countries are particularly affected, given that they face rapid ageing, while social security promises are generous. Such difficulties have led policy makers to consider switching from pay-as-you-go towards funding of pensions. European countries have generally not sought a wholesale switch to funding, but rather a relative shift to complement still-generous pay-as-you-go. A typical example is the recent reform in Germany to encourage voluntary funding via tax concessions (the Riester reform).<sup>2</sup> Against this background, we seek to assess growth in funded pensions and its wider implications for capital and labour markets, as well as for sustainability of social security.

European countries can be divided between those with mandatory and voluntary funding. As shown in Table 1, all of the Nordic countries as well as several Eastern European countries have introduced mandatory funding. There is also a long-established system in Switzerland. Among countries with voluntary funding, the OECD views the Netherlands and Sweden as having high labour-force coverage, while Austria, Belgium, Germany, Ireland and the UK have medium coverage. The remaining countries have low coverage, namely the Czech Republic, France, Greece, Italy, Luxembourg, Portugal and Spain. A number of European countries have also established reserve funds at a government level to help cope with the burden of social security payments in coming decades.

Clearly, when funding is mandatory, asset growth is determined by employment, the contribution rate and the return on assets invested, less pension payments. For voluntary funds, a wider range of demand and supply determinants come into play, which in effect lead individuals to choose pension funds as a vehicle for retirement saving (Davis and Steil 2001). Relevant advantages of pension funds on the demand side include demographic aspects and growing wealth, as well as fiscal inducements and concern over difficulties of social security pensions. Benefits on the supply side include ease of diversification via pension funds as well as improved corporate control, benefits from deregulation, ability to take advantage of technological developments, and enhanced asset-manager competition.

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<sup>2</sup> Complementary reforms to social security per se have often been more comprehensive.

Table 2 shows the changing value of pension fund assets relative to GDP. There is a clear distinction between countries in terms of size, with Denmark, Finland, Iceland, Ireland and the UK showing much larger assets. There is a contrast with Table 1 as a number of countries with mandatory or relatively high coverage show rather low asset/GDP ratios. This links to immaturity of such funds, as well as the target benefit replacement ratio. As regards growth, 2001 was quite close to the peak of the bull market, and hence the comparison with 2005 may be affected by lower asset valuations. Hence, it is encouraging that for most countries, the pension asset/GDP ratio was higher in 2005 than in 2001. The main exception was the UK, which had not yet recovered the 2001 level of assets/GDP. For all countries where consistent 1995 data are available, there was growth up to 2001 and a fortiori to 2005. Hence, we can argue that to some degree the promise of pension fund growth has been maintained, even if the levels in many countries remain small.

In the EU, the Pension Funds (IORP) Directive was introduced earlier this decade. It enshrines prudent person investment rules, and sets minimum limits of 70% equity and 30% non-matching currencies, and is hence a measure of liberalisation (Davis 2003). But it also allows countries to impose quantitative restrictions, which could constitute a loophole. In effect they could allow governments to directly or indirectly force pension funds to invest mainly in public bonds.

It is in the light of this Directive, that came into force between 2002 and 2005, that we can evaluate the shifts in portfolio distributions shown in Table 3. Again, the fall in equity prices could be expected to autonomously reduce equities' portfolio share. Also, increased focus on maintaining solvency for defined benefit funds due to deficits and changes in accounting have encouraged increased bond holdings. Despite these factors, the share of equity in the portfolio actually rose from 2002 to 2005 in many countries, including Austria, Finland, Germany, Iceland, Italy, the Netherlands, Poland and Portugal. A number of these countries had regulations limiting equity holdings prior to IORP, such as the requirement in Germany for less than 41% to be held in equities overall. We have accordingly seen a degree of deregulation, and more appropriate portfolios for the long-term liabilities of pension funds. Meanwhile, bond holdings have fallen in most countries, including some such as Belgium where equities have also fallen, suggesting wider asset-diversification.

Growth of pension funds and their equity holdings have been widely predicted to impact on European financial markets, leading them closer to a US model, with larger securities markets. This was felt to be particularly likely for those countries adopting the single currency, which also offers inducements to expand securities markets (Davis 1999). Furthermore, research on financial structure at a global level has shown benefits to capital markets from pension funding (Hu 2006), such as a stimulus to growth of equity and bond markets. In Europe, growth of foreign as well as domestic pension funds can affect financial structure (cross border investment being liberalised under IORP).

In Table 4, we show indicators of changes in financial structure over the period 1995-2005. The average is consistent with a range of the predicted beneficial effects of pension fund growth for financial structure (although other factors have also impinged). Notably, there has been a marked rise in equity market capitalisation as well as a much greater increase for private than public bonds.<sup>3</sup> The banking system has become more efficient under competitive pressure, as shown by the narrowing of margins. Meanwhile, pension fund growth has been consistent with a rise in bank lending, suggesting complementarity (e.g. house purchase borrowing accompanying pension accumulation).

Pension fund growth may have beneficial effects on the labour market, because defined contribution funds, by offering an actuarially fair return, may reduce incentives to retire early - a major problem in the EU. Reform of social security may also affect early retirement incentives, notably reform to make it more actuarially fair (as in Sweden and Italy). The most relevant indicator is the labour force participation ratio of men aged 55-64, which includes those employed and seeking work. The overall picture in European countries is encouraging (Table 5), in that since 2000 there has been a recovery in their participation rate. The only exceptions are Iceland, Portugal and Switzerland where the rate was already atypically high. In many countries, the ratio in 2005 stood higher than in 1995 also. This pattern suggests progress for European countries in resolving labour market difficulties, to which the growth in funded pensions has contributed.

We look finally at indicators of progress towards sustainability of pay-as-you-go social security (see also Disney 2003). Whereas reforms to social security can occur without a rise in funding, funding may make such reforms more acceptable, in that overall retirement income is maintained. As shown in Table 6, the replacement rate for social security has been reduced in many European countries over the 1997-2005 period, reflecting pension reform.<sup>4</sup> Further success in pension reform is indicated by the reduction in the burden of pension payments anticipated in 2050 by the European Commission in its 2006 projections compared to those made in 2001.<sup>5</sup> Germany, Spain and France are among those expecting lesser burdens at that date. That said, there remains a marked differences in levels, with the countries most reliant on funding (the UK, Netherlands, Ireland and Sweden) showing the lowest burden, and thus indicating a way forward for the others.

In sum, we have shown that the European countries remain sharply divided in terms of their reliance on funding, but there remain some encouraging signs. These include reforms of several pension systems towards funding, the growth in funds per se in excess of GDP (with further growth in prospect where funds are immature), the shift to equities despite the bear market, the development of capital markets, and some encouraging signs in labour markets and for the sustainability of public pensions.

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<sup>3</sup> Note that this indicates there are assets available for nascent pension fund sectors, especially in EMU.

<sup>4</sup> Average labour earnings have of course risen over this period, and pension systems usually hold the ratio of average earnings to pensions roughly constant over time, while replacement rates decline over the earnings scale at any given time. Accordingly, a decline in replacement rates at a constant nominal salary suggests quite far-reaching reforms, and explains why there have been rises in some other cases.

<sup>5</sup> It must be borne in mind that there could be definitional or methodological changes also differentiating between the projections.

Growth of funded pensions is itself positive for retirement income security since it diversifies “political” risk of social security pensions with market risk. Nevertheless, further reform remains vital in many countries for retirement income security to be maintained as ageing progresses.<sup>6</sup>

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<sup>6</sup> The Lisbon Agenda – and later EU pronouncements – have challenged Member States to meet coming challenges in this field, with aims such as “to carry out pension reforms to ensure adequate pensions, financial sustainability and modernity of the retirement systems in the long run”.

**Table 1: Funded Pension Systems in EU countries**

| Country        | Mandatory | Voluntary        |                    |                 | Reserve Fund<br>for Social Security |
|----------------|-----------|------------------|--------------------|-----------------|-------------------------------------|
|                |           | High<br>Coverage | Medium<br>Coverage | Low<br>Coverage |                                     |
| Austria        |           |                  | *                  |                 |                                     |
| Belgium        |           |                  | *                  |                 |                                     |
| Czech Republic |           |                  |                    | *               |                                     |
| Denmark        | 1964/1985 |                  |                    |                 | *                                   |
| Finland        | 1956/1985 |                  |                    |                 | *                                   |
| France         |           |                  |                    | *               | *                                   |
| Germany        |           |                  | *                  |                 |                                     |
| Greece         |           |                  |                    | *               |                                     |
| Hungary        | 1998      |                  |                    |                 |                                     |
| Iceland        | 1986      |                  |                    |                 |                                     |
| Ireland        |           |                  | *                  |                 | *                                   |
| Italy          |           |                  |                    | *               |                                     |
| Luxemburg      |           |                  |                    | *               |                                     |
| Netherlands    |           | *                |                    |                 |                                     |
| Norway         | 2006      |                  |                    |                 | *                                   |
| Poland         | 1999      |                  |                    |                 |                                     |
| Portugal       |           |                  |                    | *               | *                                   |
| Slovakia       | 2005      |                  |                    |                 |                                     |
| Spain          |           |                  |                    | *               | *                                   |
| Sweden         | 2000      | *                |                    |                 | *                                   |
| Switzerland    | 1982      |                  |                    |                 |                                     |
| United Kingdom |           |                  | *                  |                 |                                     |

Source: OECD Global Pension Statistics

**Table 2: Pension fund assets/GDP**

|                 | 1995        | 2001        | 2005            |
|-----------------|-------------|-------------|-----------------|
| Austria         | 0.9         | 3.9         | 4.7             |
| Belgium         | 3.6         | 5.5         | 4.2             |
| Czech Republic  | 0.5         | 2.3         | 4.1             |
| Denmark         | 20.1        | 27.2        | 33.6            |
| Finland         | ..          | 8.2         | 66.1 (1)        |
| France          | ..          | 3.9         | 5.8             |
| Germany         | 2.7         | 3.4         | 3.9             |
| Hungary         | 0.1         | 4.0         | 8.5             |
| Iceland         | 50.4        | 84.7        | 123.2           |
| Ireland         | ..          | 44.3        | 52.8            |
| Italy           | ..          | 2.3         | 2.8             |
| Netherlands     | 84.8        | 102.6       | 124.9           |
| Norway          | ..          | 4.0         | 6.8             |
| Poland          | ..          | 2.5         | 8.7             |
| Portugal        | 8.2         | 11.5        | 12.9            |
| Slovak Republic | ..          | 0.0         | 0.6             |
| Spain           | ..          | 3.8         | 9.1             |
| Sweden          | ..          | 8.2         | 14.5            |
| Switzerland     | 80          | 104.4       | 117.4           |
| United Kingdom  | 68.2        | 72.5        | 70.1            |
| <b>Average</b>  | <b>29.0</b> | <b>25.0</b> | <b>33.7</b>     |
| <b>EU-15</b>    | <b>26.9</b> | <b>24.1</b> | <b>28.3 (1)</b> |

Source: OECD Global Pension Statistics; (1) Finland excluded from EU-15 due to series break

**Table 3: Portfolio distributions of pension funds**

|                | <b>2002</b>  |                 | <b>2005</b>  |                 |
|----------------|--------------|-----------------|--------------|-----------------|
|                | <b>Bonds</b> | <b>Equities</b> | <b>Bonds</b> | <b>Equities</b> |
| Austria        | 74.5         | 13.4            | 54.5         | 36.5            |
| Belgium        | 16.8         | 14.6            | 6.7          | 9.8             |
| Czech Republic | 49.9         | 6.2             | 82.4         | 0               |
| Denmark        | 58.9         | 27.6            | 50.3         | 25.9            |
| Finland        | 35           | 13.7            | 45.7         | 41.3            |
| France         |              |                 | 63.4         | 5.3             |
| Germany        | 41.4         | 15.8            | 30.7         | 34.5            |
| Hungary        | 73.3         | 8.7             | 75.5         | 7.8             |
| Iceland        | 55.8         | 25.8            | 49.9         | 34.5            |
| Italy          | 49.9         | 8.6             | 36.5         | 9.9             |
| Luxembourg     |              |                 | 33.2         | 10.6            |
| Netherlands    | 42(1)        | 47(1)           | 38.3         | 49.8            |
| Norway         | 36.2         | 47.8            | 55.4         | 28.9            |
| Poland         | 68           | 27.8            | 63.4         | 32              |
| Portugal       | 48.7         | 16.7            | 40.5         | 21.1            |
| Spain          | 58.1         | 19.6            | 60.2         | 15.2            |
| Switzerland    | 26.8         | 26.5            | 25.6         | 16.9            |
| United Kingdom | 19.2         | 53.8            | 20.2         | 40.1            |

Source: OECD Global Pension Statistics; (1) Data for 2000

**Table 4: Indicators of changes in financial structure over 1995-2005**

| Country         | Private Credit by<br>Deposit Money Banks<br>/ GDP | Banks' net Interest<br>Margin | Stock Market<br>Capitalization / GDP | Private Bond Market<br>Capitalization / GDP | Public Bond Market<br>Capitalization / GDP |
|-----------------|---|-------------------------------|--------------------------------------|---|--|
| Austria         | 0.215   | -0.003                        | 0.115                                | 0.112                                       | 0.093                                      |
| Belgium         | 0.048   | -0.008                        | 1.034                                | -0.151                                      | 0.000                                      |
| Czech Republic  | -0.332  | -0.012                        | 0.038                                | 0.037                                       | 0.408                                      |
| Denmark         | 1.372   | -0.012                        | 0.284                                | 0.379                                       | -0.130                                     |
| Finland         | 0.082   | 0.015                         | 0.660                                | -0.063                                      | 0.115                                      |
| France          | 0.106   | -0.006                        | 0.515                                | -0.026                                      | 0.236                                      |
| Germany         | 0.246   | -0.005                        | 0.219                                | -0.113                                      | 0.202                                      |
| Greece          | 0.484   | 0.001                         | 0.454                                | -0.026                                      | 0.359                                      |
| Hungary         | 0.251   | 0.005                         | 0.190                                | 0.042                                       | 0.186                                      |
| Iceland         | 1.200   | -0.039                        | 1.030                                | 1.689                                       | -0.042                                     |
| Ireland         | 0.788   | -0.010                        | 0.558                                | 0.190                                       | -0.150                                     |
| Italy           | 0.359   | -0.017                        | 0.256                                | 0.164                                       | -0.119                                     |
| Netherlands     | 0.838   | -0.002                        | 0.221                                | 0.360                                       | 0.044                                      |
| Norway          | 0.294   | -0.002                        | 0.211                                | 0.050                                       | -0.042                                     |
| Poland          | 0.146   | -0.036                        | 0.202                                | 0.000                                       | 0.181                                      |
| Portugal        | 0.945   | 0.008                         | 0.242                                | 0.199                                       | 0.146                                      |
| Slovak Republic | -0.030  | -0.007                        | 0.030                                | 0.000                                       | 0.187                                      |
| Spain           | 0.536   | -0.012                        | 0.565                                | 0.207                                       | 0.022                                      |
| Sweden          | 0.776   | 0.033                         | 0.367                                | -0.095                                      | -0.032                                     |
| Switzerland     | 0.077   | -0.006                        | 1.090                                | -0.123                                      | 0.150                                      |
| United Kingdom  | 0.504   | 0.007                         | 0.098                                | 0.032                                       | -0.052                                     |
| <b>Average</b>  | <b>0.424</b>                                      | <b>-0.005</b>                 | <b>0.399</b>                         | <b>0.136</b>                                | <b>0.084</b>                               |
| <b>EU-15</b>    | <b>0.521</b>                                      | <b>-0.001</b>                 | <b>0.399</b>                         | <b>0.084</b>                                | <b>0.052</b>                               |

Source: World Bank Financial Structure Database

**Table 5: Indicator of early retirement** (labour force participation rate of men aged 55-64)

|                 | 1990        | 2000        | 2005        |
|-----------------|-------------|-------------|-------------|
| Austria         |             | 42.5        | 43.1        |
| Belgium         | 35.4        | 36.3        | 43.2        |
| Czech Republic  | ..          | 54.5        | 62.2        |
| Denmark         | 69.1        | 64.5        | 70.2        |
| Finland         | 47.1        | 48.1        | 56.5        |
| France          | 45.8        | 41.7        | 47.1        |
| Germany         | 55.9        | 52.4        | 61.3        |
| Greece          | 59.5        | 57.3        | 60.7        |
| Hungary         | ..          | 34.1        | 42.4        |
| Iceland         | ..          | 94.7        | 90.1        |
| Ireland         | 65          | 64.7        | 67.8        |
| Italy           | 53          | 42.7        | 44.3        |
| Luxembourg      | 43.2        | 38.6        | 39.4        |
| Netherlands     | 45.7        | 50.9        | 57.8        |
| Norway          | 72.8        | 74.4        | 74.6        |
| Poland          | ..          | 40.4        | 43.4        |
| Portugal        | 66.5        | 64.5        | 62.4        |
| Slovak Republic |             | 41.0        | 55.0        |
| Spain           | 62.5        | 60.5        | 63.2        |
| Sweden          | 75.5        | 72.6        | 76.4        |
| Switzerland     | ..          | 79.1        | 77.8        |
| United Kingdom  | 68.1        | 63.2        | 68          |
| <b>EU-19</b>    | <b>56.5</b> | <b>51.1</b> | <b>56</b>   |
| <b>EU-15</b>    | <b>56.5</b> | <b>52.3</b> | <b>57.2</b> |

Source: OECD Labour Force Statistics

**Table 6: Indicators of Sustainability of Social Security Pensions**

|             | Social Security Replacement Rate (1) |      | Projected Social Security Pension Payments/GDP in 2050 (2) |       |
|-------------|--------------------------------------|------|--|-------|
|             | 1997                                 | 2005 | 2001   | 2006  |
| Belgium     | 45                                   | 41   | 13.3   | 15.5  |
| Denmark     | 37                                   | 50   | 13.3   | 12.8  |
| Germany     | 43                                   | 38   | 16.9   | 13.1  |
| Greece      | 48                                   | 56   | 24.8   | 22.9E |
| Spain       | 63                                   | 60   | 17.3   | 15.7  |
| France      | 51                                   | 58   | 15.8*  | 14.8  |
| Ireland     | 21                                   | 31   | 9  | 11.1  |
| Italy       | 75                                   | 72   | 14.1   | 14.6  |
| Luxembourg  | 76                                   | 88   | 9.3  | 17.4  |
| Netherlands | 31                                   | 37   | 13.6   | 11.2  |
| Austria     | 70                                   | 63   | 17   | 12.2  |
| Portugal    | 74                                   | 78   | 13.2   | 20.8  |
| Finland     | 59                                   | 60   | 15.9   | 13.8  |
| Sweden      | 50                                   | 35   | 10.7   | 11.2  |
| UK          | 33                                   | 19   | 4.4  | 8.6   |

Source: Watson Wyatt "Benefits Reports Europe USA", European Commission

(1) Ratio of pension to final salary for married man earning USD 50,000 equivalent

(2) The columns refer to the date when the projection was made