

## **Spring 2006 Report on Financial Conditions and Financial Stability in the European Insurance and Occupational Pension Fund Sector**

**2004-2005**

Risk Update

**- NOTICE -**

CEIOPS prepares a Financial Stability Report on the European insurance and occupational pension fund sector on a semi-annual basis. The autumn report is primarily based on supervisory information, whereas the spring report is primarily based on market information. The current version is the public version of the spring report and only contains public information. Although some detailed information has been left out from this public version, the overall assessment on the European insurance and pension fund sector has not changed.

### **Introduction**

CEIOPS' Financial Stability Committee (FSC) has prepared a new semi annual report on the financial conditions and financial stability of the insurance and pension fund market in the EU/EEA as requested by CEIOPS' Members and the EFC. An interim report on the financial stability in the insurance sector had been sent to the EFC Financial Stability Table for the discussion on the macro-financial conditions and overall stability of the EU financial system at its meeting end March 2006. This report has been discussed at CEIOPS' Members Meeting of 25/26 April 2006.

This current report is based on:

- fast-track reporting of key figures from a number of major European insurance groups or companies for 2004 and 2005, covering at least 50% of each national market, and in many cases (close to) 100%. These fast-track figures are used as indications for the developments for the whole market in each country.
- qualitative information from the insurance supervisors pertaining to the insurance, reinsurance and pension fund market situation in the respective countries; and
- market information.

The current report addresses the following issues:

1. Main issues and conclusions
2. Development on financial markets
3. Structure of the European insurance market
4. Development in premiums and claims
5. Financial strength and profitability
6. Asset allocation
7. Current challenges and vulnerabilities

Box: Developments on the reinsurance market

Appendix: The European occupational pension fund sector

## **1. Main issues and conclusions**

- Despite the large losses related to natural catastrophes, 2005 was a good year for the insurance sector in Europe. Market participants perceive that the stability of the insurance sector has increased further, viewing share price indices and financial strength ratings.
- Overall, the life sector has shown a moderate growth, in various countries mainly fed by a strong growth of unit-linked products, with guaranteed contracts still being the main source for premium income in the life sector.
- Results in the non-life sector continue to improve overall, yet various countries show in some business lines a dampening effect of enhanced competition on premium income.
- The reinsurance sector was severely hit by several natural catastrophes that entailed substantial losses and that also seem to have halted the expected trend towards softening premium rates.
- Solvency has remained adequate for the whole European insurance sector and appears to be slightly improving, partly helped by the recovery in the equity market. Equity exposures had declined significantly since the equity markets downturn during 2000-2003, but a gradual increase can be perceived afterwards, mainly by the market recovery.
- The insurance industry as a whole faces several risks and challenges, of which the risk of a prolonged period of low or even further decreasing interest rates, reinsurance risks, risks related to premium competition, longevity risk and the risk of an eventual outbreak of pandemic flu as well as additional national disasters are the most prevalent ones.
- Recent pension reform efforts in Europe are geared towards the economic implications of an ageing population that is accompanied by a high level of future pension liabilities. As a result, growth of the occupational pension fund sector is expected to accelerate further over the coming decades as a means of diversifying some of the longevity risk related to traditional social security systems.
- The financial position of the occupational pension fund sector has improved in most countries, due to positive developments in equity markets as well as growth in contributions. In a number of countries defined benefit (DB) plans are gradually phasing out and being replaced by new defined contribution (DC) plans. The gradual switch from DB to DC plans in a number of countries will help reduce the vulnerability of the pension fund sector to funding risk related to DB plans. This trend will also imply a

greater transfer of investment risk from the pension fund sector to the household sector.

## 2. Developments on financial markets

Market trends provide a good indication of financial conditions facing insurance firms, even if they themselves do not have actively traded shares or bonds. Most importantly, general market developments have a significant effect on firms' investment revenue, capital position and ability to write business. In addition, market developments also provide a good indication of the sector's business and financing prospects. For example, relatively weak equity and bond prices for insurance companies would suggest that investors are taking a negative attitude towards the earnings prospects for the sector and are placing a higher risk premium on insurance firms. Both factors are likely to make fresh capital from whatever source more difficult and more expensive to raise.

Figure 1 The development of European long- and short-term interest rates

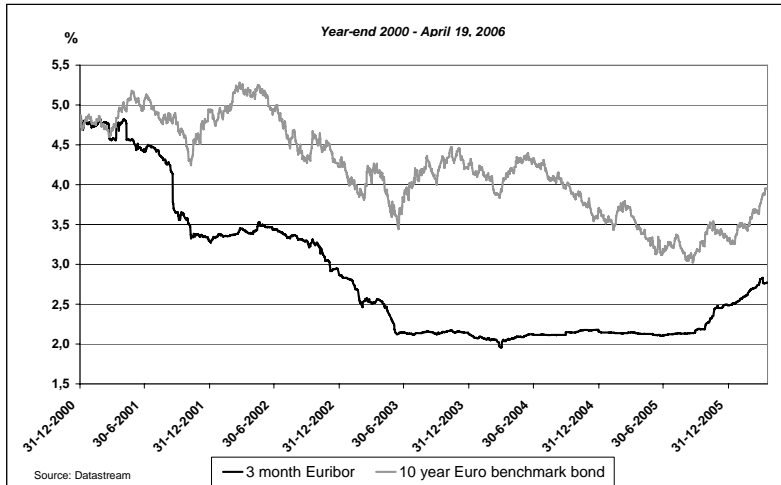
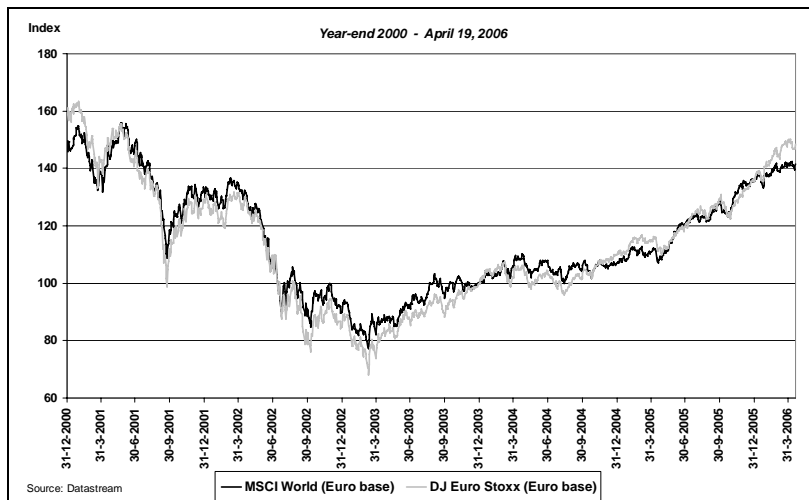


Figure 2 The development of European and world equity indices (1/1/ 2004= 100)



Financial markets in 2005 continued the trends that had started in the preceding years, although some reversing trends could be perceived with respect to interest rates. Short term interest rates rapidly increased after two interest rate increases by the European Central Bank (from 2.0 to 2.25% on 6 December 2005 and from 2.25 to 2.5% on 8 March 2006) with the three month Euribor ending up at 2.74% mid April coming from a more or less stable 2.10% for over two years (figure 1). Long-term government bond yields in the euro area recently show upward movements back to end 2004 levels, in particular to almost 4% mid April coming from a low at 3,02% in September 2005. Many market participants expect further interest rate increases in the USA and Europe, generally based on a positive global economic outlook. European and global equity markets continued and even accelerated their revival that started beginning of 2003. The acceleration is primarily based on healthy economic forecasts, after some slowing down in the first half of 2005 (figure 2). The further recovery in the equity markets has helped insurers to improve their financial position via its positive impact on equity investments (see chapter 5).

Figure 3A EU stock market indices (31/12/1998 = 100)

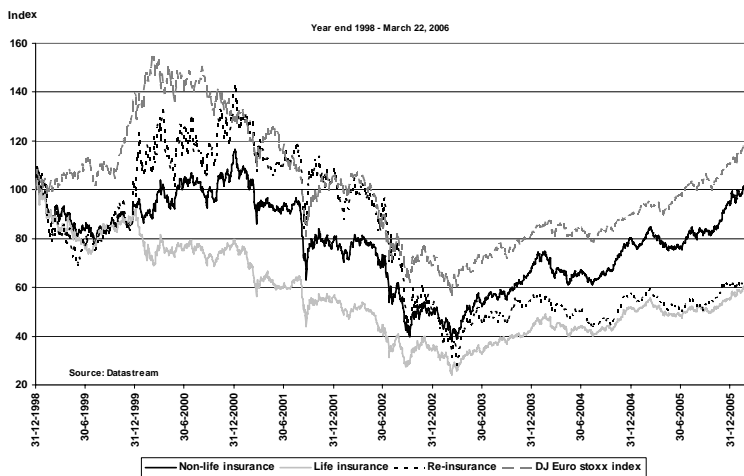
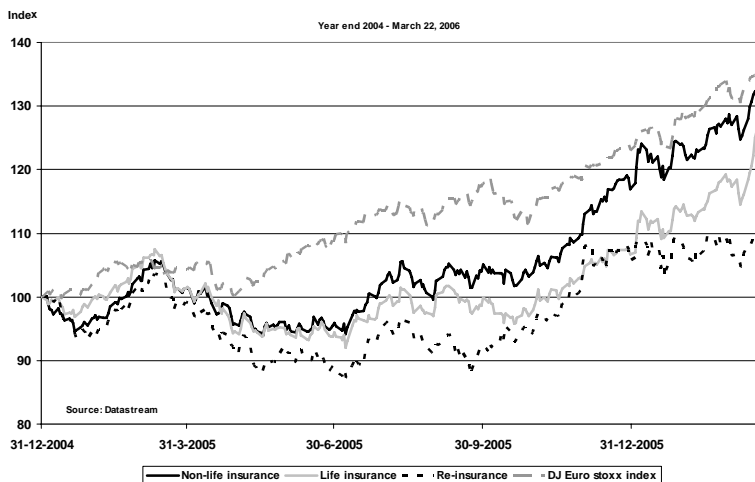


Figure 3B EU stock market indices (31/12/2004 = 100)



Over 2005, the development of share price indices of the three European insurance sectors fell behind the positive growth of the European wide share index (figure 3A). Life insurers and reinsurers in particular were evaluated with greater scepticism. The cautious market assessments suggest that investors are giving the existing risks on both markets a stronger weighting. A more recent catch up is visible for the non-life and life sectors (figure 3B). This catch up can partly be explained by M&A activities and rumours that recently took place in the European and global insurance sector. The information on share prices is broadly confirmed by other market risk indicators, such as ratings. In terms of financial strength ratings, European insurers have again been subject to more upgrades than downgrades since the end of 2004 (figure 4). Most of the insurance ratings have a stable outlook, which suggests that much of the continued improvement expected in 2006 is already factored into ratings. Only very few large European insurers continued with a negative outlook.

Figure 4 The development of European insurance financial strength ratings

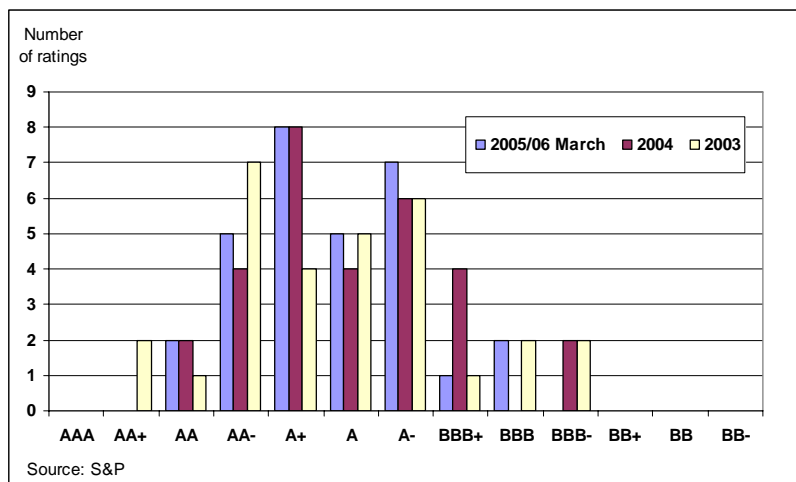
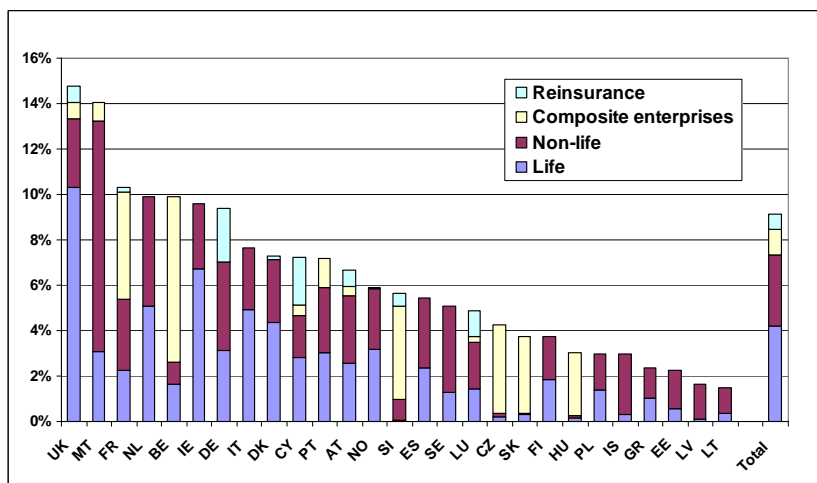


Figure 5 Insurance penetration: Gross Written Premiums in % of GDP (2004)

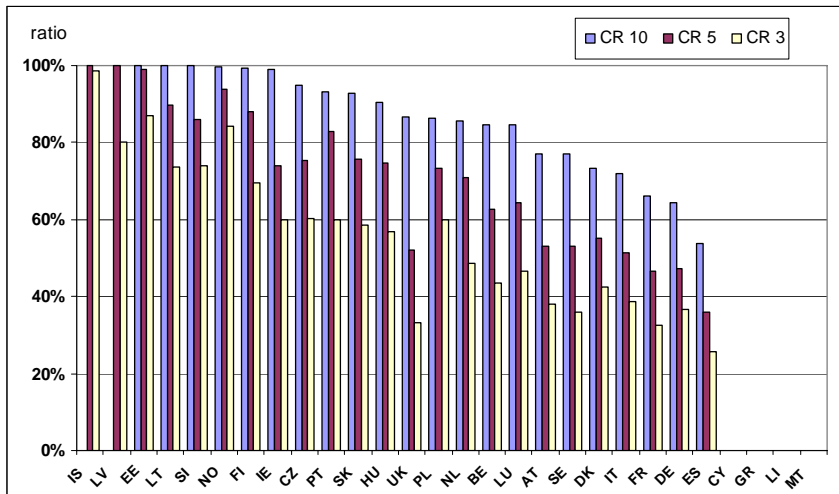


Note: Less than 5% of overall life premiums and only 52% of non life premiums of Luxembourg insurers are written within the country.

### 3. Structure of the European insurance market

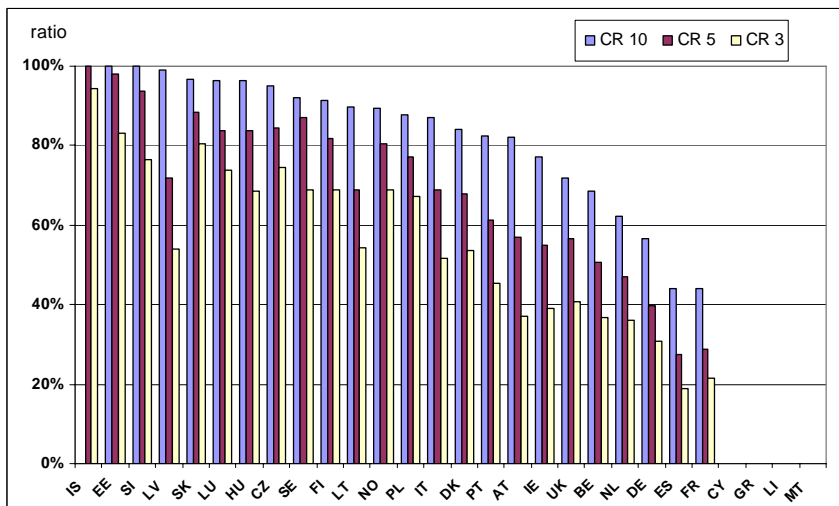
This chapter provides some insight in the structure of the European insurance market, for example the concentration on the life and non-life markets as well as the insurance penetration in the various countries (figures 5 and 6A&B). The insurance markets in the various European countries are highly concentrated, especially in the smaller countries. The ten largest life insurance groups have market shares ranging from 55% to 100% in the smaller countries (figure 6A). For the non-life sector the range is from 44% to 100 in smaller countries (figure 6B). Countries also point to a trend towards higher concentration and in general a decline in the number of companies. The insurance penetration, measured by insurance premium as percentage of GDP, varies from around 2 to 4% in the eastern part of Europe to 10% or more in some large European countries.

Figure 6A Concentration\* in the life sector (Top 3 entities, Top 5, Top 10)



\* as % of gross premiums

Figure 6B Concentration\* in the non-life sector (Top 3 entities, Top 5, Top 10)

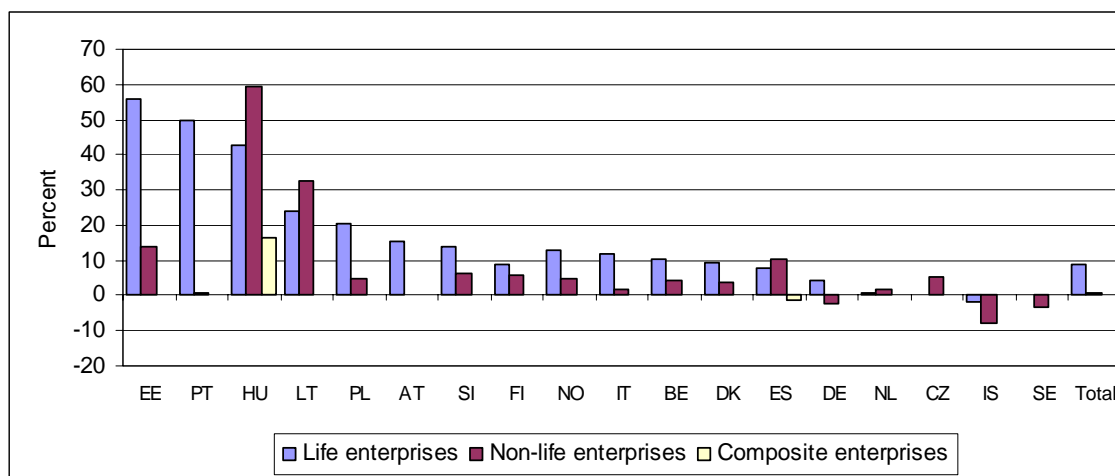


\* as % of gross premiums

#### 4. Development in premiums and claims

Most countries reported a continued premium growth in the life insurance sector in 2005. In the non-life sector, premium growth is generally more moderate or even negative in some countries. According to the fast-track reporting tables submitted by 17 countries (figure 7)<sup>1</sup>, which information is used as indicative for the developments for the whole market in each country, the weighted average gross premiums in life insurance enterprises increased by 9.0% from 2004 to 2005. The corresponding growth for non-life insurance enterprises was only slightly positive (0.5%). The weighted average of reported gross written premiums for composite insurance enterprises increased by 0.3%.

Figure 7 Growth in gross premiums written from 2004 to 2005 (local currency)



For HU, the growth rates for the pure life and non-life insurers are considerably higher than for the composite companies, who represent 94 percent of the insurance market.

#### Life sector

In general, countries reported a steady or continued growth in the life sector in 2005. In a majority of the countries, the growth in unit-linked or index-linked products is clearly higher than the growth in traditional products with guaranteed interest rates. However, the bulk of the premiums in most EU/EEA countries are still generated from guaranteed return contracts. The current low interest rate environment gives policyholders an incentive to choose products that are linked to equities and other assets with a higher expected return than interest bearing securities. These more risky assets are often limited in traditional guaranteed business, where solvency considerations give incentives for investments in long-term bonds (asset liability matching).

Companies that offer guaranteed products with small capital buffers can face severe limitations on their investment possibilities, which can make it virtually impossible for them to compete in the market. The move away from guaranteed products to unit-linked products means that investment risks are borne increasingly by the policyholders. However, as linked products involve companies bearing less risk, they offer correspondingly lower margins.

<sup>1</sup> The fast-track reporting is based on information on key figures on 2005 from the major European insurance groups or companies, covering at least 50% of each national market, and in many cases (close to) 100%. For some countries, no information is available.

The growth in life insurance premiums is very high in some countries in the eastern part of Europe, due to an increased insurance penetration in the economy (see figure 5 for a European wide comparison of the insurance penetration). This trend is linked to an increase in lending volume, mainly connected to housing and car investments by private households, and the need to secure these loans. As such, both life insurance policies and property and casualty insurance policies are in higher demand. In some countries in the region, however, growth rates have fallen considerably, indicating that the structural change towards higher insurance penetration may soon be brought to a conclusion.

In several markets, tax and pension reforms that affect life insurance products are under way. As a consequence, there are cases of strong shifts towards new products that are tailored to the new legislation.

#### Non-life sector

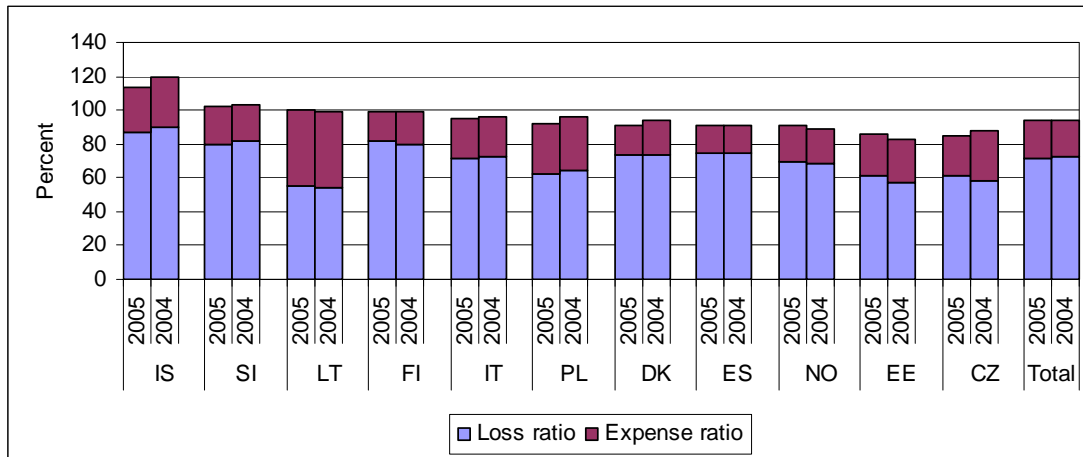
The development of gross premiums written in the non-life insurance sector is generally more modest than in the life sector. While the majority of countries reported a positive, but often moderate growth, a number of countries reported a decrease in non-life premiums written from 2004 to 2005. The figures indicate a slightly positive overall growth (figure 7).

There seems to be an ongoing trend reversal towards lower premium levels in the non-life sector, although the development differs between countries. Some countries report lower premium levels in non-life insurance in 2005, mainly caused by increased competition. Improved underwriting results have given companies the opportunity to decrease prices in order to secure or even expand their market share.

The low or even negative growth in premiums seems to be accompanied by an equally low growth in claims. In many countries net loss ratios (claims ratios) are relatively stable or only slightly increasing, but in most cases still at a low level (figure 8). According to the fast-track reporting tables, the aggregate net loss ratio for the reporting countries was 72 in 2004 as well as in 2005.

The aggregate expense ratio (cost ratio) for the reporting countries was stable at 22 in 2005. The aggregated combined ratio was unchanged at 94 in 2005.

Figure 8 Net combined ratio\*



\* Defined as claims and operating expenses divided by premiums, net of reinsurance

## 5. Financial strength and profitability of the insurance sector

Overall, the positive development in the EU/EEA insurance sector has improved the financial strength of the industry, especially for the non-life companies. In the life insurance sector, the solvency ratio (available solvency margin divided by the required solvency margin) has also increased, but is generally lower than for non-life companies. However, the fall in long-term interest rates over the last years has raised some concerns over the ability of the life insurance industry to meet the long-term obligations for guaranteed return products. In most countries, this does not affect the solvency ratio, as liabilities are not valued at market value.

There were no severe incidents of insolvencies in the insurance sector in 2005. Some countries report that a few, especially smaller, insurance companies have showed signs of solvency problems in 2005, of which some are under intensified supervision. According to the fast-track reporting tables, the aggregate solvency ratio for the reporting countries has increased during 2005 for both life and non-life companies, as well as composite companies.

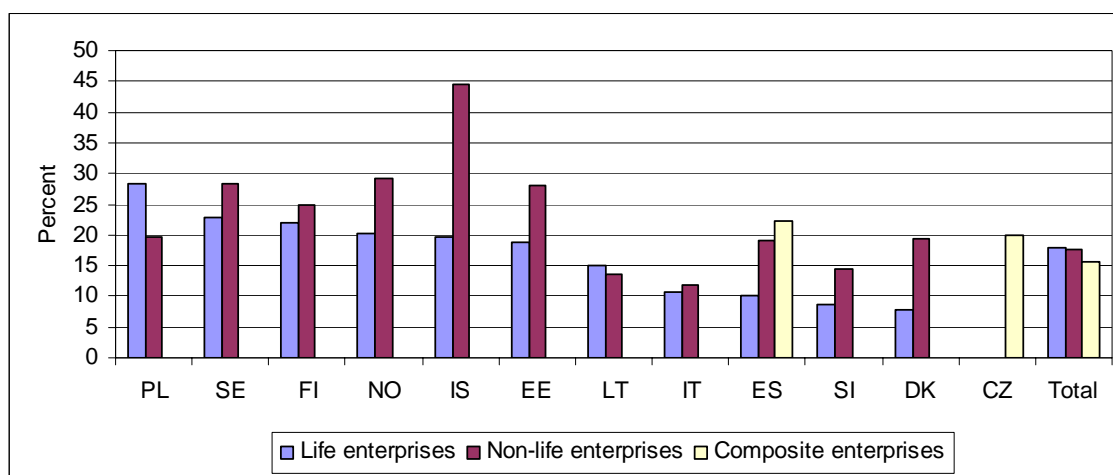
Supervisors in many countries have reported the use of stress testing to evaluate the ongoing solvency situation of insurance firms. Results of these tests confirm the financial strength of the life sector and its ability to withstand shocks in equity and bond markets. In many countries the regular stress tests do not consider the effect of interest rate shocks on the liabilities side, as these are currently not valued at market value on the balance sheet.

The positive development in the life sector as well as the non-life sector has resulted in an increased overall profitability. Fairly good returns on equity investments contributed to positive profits in the life sector in 2005, while profits in the non-life sector were also favoured by good underwriting results. Measured by the return on equity<sup>2</sup>, profitability in 2005 in general looks healthy.

<sup>2</sup> It should be kept in mind that there are some shortfalls when comparing return on equity between countries. These have amongst other things to do with the treatment of revaluation reserve and equalisation provisions in the various countries. Whether or not a revaluation reserve exists and forms part of equity capital depends on how the items are valued in the annual

According to the fast-track reporting tables, the aggregate return on equity for the reporting countries was higher in 2005 than in 2004 for both life and non-life companies, as well as composite companies. The aggregate (weighted average) return on equity for the reporting countries in the life sector was 18% in 2005, up from 17% in 2004 (figure 9). The aggregate return on equity for the reporting countries in the non-life sector was 18% in 2005, up from 15% in 2004. The corresponding figure for the composite companies was 16% in 2005, up from 15% in 2004.

Figure 9 Return on equity\* of the insurance sector 2005



\*Defined as profit or loss after tax for the financial year divided by total capital and reserves

## 6. Asset allocation

There are no apparent trends in the overall assets allocation last year. Many countries report a stable mix of assets. Some countries report that investments in bonds and other fixed income securities have increased relative to other assets while other countries report that equities have increased their share of total assets.

Many countries experienced large reductions in equity exposure between 2000 and the beginning of 2003. Since then equity exposure has gradually increased, mainly through the market recovery, but in some cases also through new investments. In most cases the exposure is still considerably lower than in 2000.

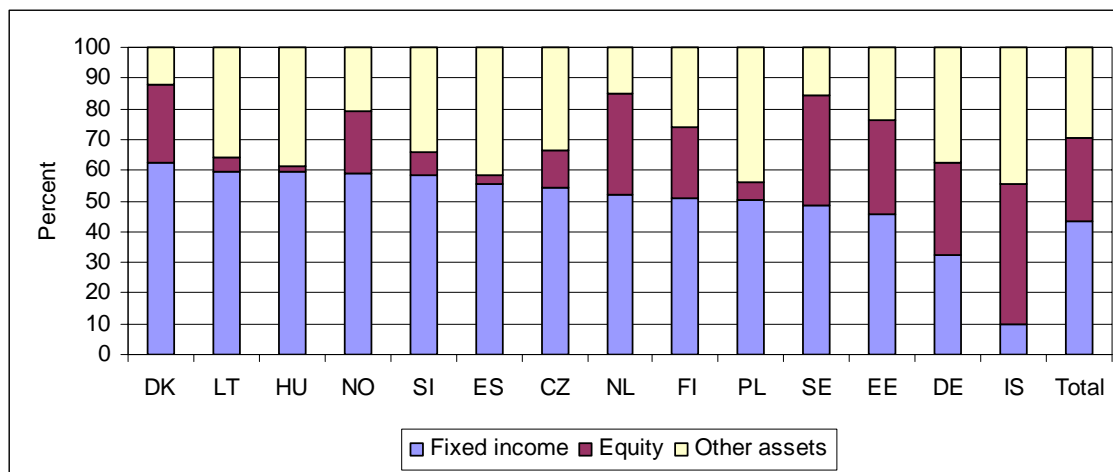
The fast-track reporting tables show a slight increase in the aggregate equity share of total assets for the reporting countries during 2005<sup>3</sup>. The aggregate (weighted average) share of equities was 27% in the insurance industry at the end of 2005, up from 25% at the end of 2004 (figure 10). Fixed income investments amounted to 44% of total assets at the end of 2005, unchanged since the end of 2004. In the life insurance sector, equity investments for the reporting countries amounted to 26% and fixed income investments to 43% of total assets at end 2005. In the non-life sector, the share of equities was 30% and the share of fixed income investments was 34% at end 2005. For the

accounts. In countries where equalisation provisions are not built up, the companies normally have to show a higher equity capital.

<sup>3</sup> Investments for the benefit of policyholders who bear the investment risk are excluded.

composite companies, the asset mix was merely 4% in equities and 52% in fixed income investments at the end of 2005.

Figure 10 Asset allocation\* insurance sector 2005



\* Investments for the benefit of policyholders who bear the investment risk are excluded; Equity covers shares and other variable-yield securities and units in unit trusts

The current development of the insurance sector seems to provide mixed incentives for asset allocation, at least in the life sector. On one hand, the positive profits the last couple of years has increased the financial strength of the sector, which gives the companies the ability to invest more in equities and other high volatility assets. On the other hand, the increased focus on asset liability matching, spurred by the prevailing process towards market valuation of technical provisions on the balance sheet as well as future solvency rules and supervisory tools, gives incentives for investing in long-term bonds that match the long-term liabilities.

Asset liability matching considerations have increased the demand for long-term bonds. A shortage of supply for such instruments may have contributed to the fall in long-term interest rates in some countries. Other countries report of efforts to deepen the market for long-term instruments, to meet the demand from life insurance companies and pension funds. In some countries there are signs of increased investments in structured products, like CDOs and hedge funds, which may be motivated by prospects of higher yields and better overall diversification in the investment portfolio. There are also reports that companies are adapting their fixed income investments towards higher return bonds, thereby taking on more credit risk.

## 7. Current challenges and vulnerabilities

Member states report a wide range of challenges and vulnerabilities with regards to their insurance sectors. Despite the recent increase in interest rates, the *prolonged period of low or even further decreasing interest rates* is still perceived as the main risk for the life insurance sector. The current low interest rate environment seems to have structural reasons, which could prevail for quite some time. In those cases where insurance contracts include guarantees, this could lead to a gap between insurance returns and formerly guaranteed rates and thereby endanger the solvability of at least some companies in the medium

term. Life insurance companies traditionally have a high exposure through their fixed-income securities holdings. Many of the companies have raised this sort of investment in parallel to the reduction in equity over the last couple of years. The persistent low yield has induced several risk mitigation actions, both from supervisory authorities and insurance companies. A number of countries reduced the maximum guaranteed interest rate in 2004 and 2005 (to even zero in exceptional cases; see the table ahead), but this provides only some degree of relief as the reduction only applies to new contracts. Other countries are currently debating possible reductions to the maximum guaranteed interest rate. Insurers on the other hand increasingly aim at lowering the interest guarantee connected with insurance products as well as at offering fewer products with interest guarantees. Countries also mention that interest rate risk on liabilities is effectively mitigated by the prevalent use of interest rate derivatives by insurance companies. It also appears that insurers have extended their portfolio maturities in order to reduce the asset-liability maturity mismatch by purchasing ultra long term government bonds recently issued in some European countries. Finally, it was noticed that this risk is to some extent passed on to policyholders through unit-linked contracts.

Countries also pointed out the *risks related to equity markets* and their importance on life insurers. This risk may have become less pressing over the past year, partly because of recovery in equity markets, and partly because of efforts by firms which had a heavy equity exposure to diversify their portfolios or hedge against share price fluctuations. Several countries reported a further net decrease in equity exposures held during 2004, in favour of bonds and other fixed income instruments, the higher proportion of corporate exposures in their bond portfolio resulting in increased *credit risk* exposure. In general, insurers rely on asset liability management and stress tests to mitigate these financial risks. At the same time, insurance companies hedged part of the remaining equity exposure. While limiting their equity risk in this way, it also prevented companies to fully benefit from the recent rebound in stock prices since beginning of 2003.

Few countries reported challenges associated with changes to the *legal environment* and *reporting requirements*. Many of these relate to changes at the national level, but the Europe-wide initiatives of IAS and Solvency II were also specifically mentioned. Several countries also highlighted specific *taxation and system reforms* that mean significant challenges to the insurance sector, varying from a regime shift in the health insurance system and the pension system, to the withdrawal of tax incentives attached to several life products, and changes in specific (tax or other) regulation.

Member states reported various non-life insurance risks, of which the most common ones are related to the premium cycle, claims inflation and reinsurance. Various member states drew attention to *the risks related to premium competition* in the non-life sector. Some countries indicated that this put downward pressure on the premium rates in some business lines. The risk is that competition could drive the premium levels below a risk reflecting level.

*Risks related to reinsurance* were also highlighted by a number of countries. In that respect, an emerging trend towards higher damage claims owing to natural (and man-made) catastrophes was noted. In addition to a tightening pricing and acceptance policy, companies are becoming more exposed to changes in the reinsurance market. The trends indicate that on the one hand, reinsurance has

become more expensive for a given coverage as a result of a general tightening in the reinsurance capacity while at the same time insurance companies have not been able to fully pass on the rise in reinsurance costs to their policyholders. Other countries signal that the increases in international reinsurance premium rates, e.g. after the hurricanes in the USA, have gradually found their way to the premiums charged by direct insurers. A couple of countries finally highlighted concerns about a tightening reinsurance market, leading to certain risks being under reduced scope of protection or even excluded from coverage. Newly emerging risks (terrorism risk, asbestosis exposure and nuclear -bacteriological-chemical risks) are leading to a strong demand from the insurance industry to specifically exclude certain risks from coverage.

A longer term challenge for life insurers and especially to their annuity business that was highlighted by some countries is *longevity risk* –life expectancy increasing faster than expected– and *mortality risk* which could hurt insurers' reserves for longer periods of time. A *global pandemic*, such as an outbreak of pandemic flu, or a catastrophic event could have the opposite effect, resulting in higher mortality rates and hence a reduction in future annuity payments. However, such an event would lead to a rise in payment of death claims. While a firm writing both term assurance and annuities could, in principle, claim some capital relief from 'hedging', the extent to which the two risks truly offset each other needs to be appraised carefully. So far, only a few firms have been able to demonstrate a material benefit where two types of contract have been sold to groups of policyholders with very similar age, sex and location characteristics. A global pandemic would also be likely to have major consequences on non-life insurers through claims arising from business interruption, travel and medical insurance policies, not to mention the impact on financial markets.

Finally, a few countries highlighted the loss or decline of clients confidence due to mis-selling practices in the life insurance sector. Some new EU member states mentioned the challenges posed by the *entry of new insurance firms* in their markets following the EU accession.

Table Maximum guaranteed rates life insurance

Country	2006	August 2005	February 15, 2005	April 15, 2004	July 1, 2000	Before July 1, 2000
Austria	2.25% (from January 1, 2006)			2,75% (as of January 1, 2004)	3,25%	4,0% until July 1, 2000 3,0% until January 1, 1995
Belgium	unchanged	unchanged	unchanged	3,75%	3,75%	4,75% until January 1, 1999
Denmark			unchanged	2,0%	2,0%	5,0% until July 1, 1994 3,0% until January 1, 1999
Finland		unchanged	unchanged	2,5%	3,5%	4,5% until January 1, 1999
France	unchanged	Lt: 2% St: 2,5%	Lt: 2,25% St: 3%	Lt: 2,5% St: 3%	Lt: 3% St: 3,75%	Lt: 3% St: 3,75% (until January 1, 1998)
Germany	Reduction planned for 2007 to presumably 2,25%	unchanged	unchanged	2,75% (as of 1/1 2004)	3,25%	4,0% until July 1, 2000 3,5% until July 1, 1994
Hungary	2,9%	4,0%	4,0%	4,0% (as of 1/1 2002)	5,5%	
Ireland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Italy	2% (from January 1, 2006)	unchanged	unchanged	2,5% (from December 1, 2003)	3,0%	3% (from July 1, 1998) 2,5% (from September 1, 1999) 3% (from May 1, 2000)
Lithuania	2,16	2,25%	2,64%	2,99%		
Luxembourg			2,25% (from 1 April 2005)	2,5%	2,75%	3,75% before 1998
Netherlands	unchanged	unchanged	unchanged	3,0%	3,0%	4,0% before 1998
Norway	2,75%			3,0% for new premium income, 1/1 2004	3,0%	4,0% until November 1993
Poland	3,48% from 1/4 2006	3,96%	4,26%	4,5%		
Portugal	unchanged	unchanged	unchanged	4,0%	4,0%	
Spain	2,14%		2,42%	2,68% (as of January 1, 2004)	3,15%	4,0% until June 21, 1997
Sweden	unchanged		2,75% (for new business), 3,0-3,25 for existing portfolio	3,0%	3,0%	4,0% before 1998
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: National insurance supervisory authorities

Notes:

**BE** Maximum technical interest rate of 3,75% applies to life contracts denominated in Euro. For contracts with a duration of less than 8 years, an actuarial rate based on the spot rate of Belgian Government bonds for that duration is used.

**ES** A dynamic adjustment to market changes (based on Spanish Treasury bonds) is used. The following maximum interest rates for mathematical provisions are used in each year, without considering when the policy was subscribed:

1999	3,20%	2003	2,89
2000	3,15%	2004	2,68
2001	3,15%	2005	2,42
2002	3,11%	2006	2,14

**FR** Two different interest rates are used, for durations above (Lt) and below (St) 8 years.

**LT** The maximum interest rates are gradually reduced four times a year.

**PT** The maximum rate is subject to the term structure of business written and may only be allowed if stress tests show the capacity of the company to pay these rates.

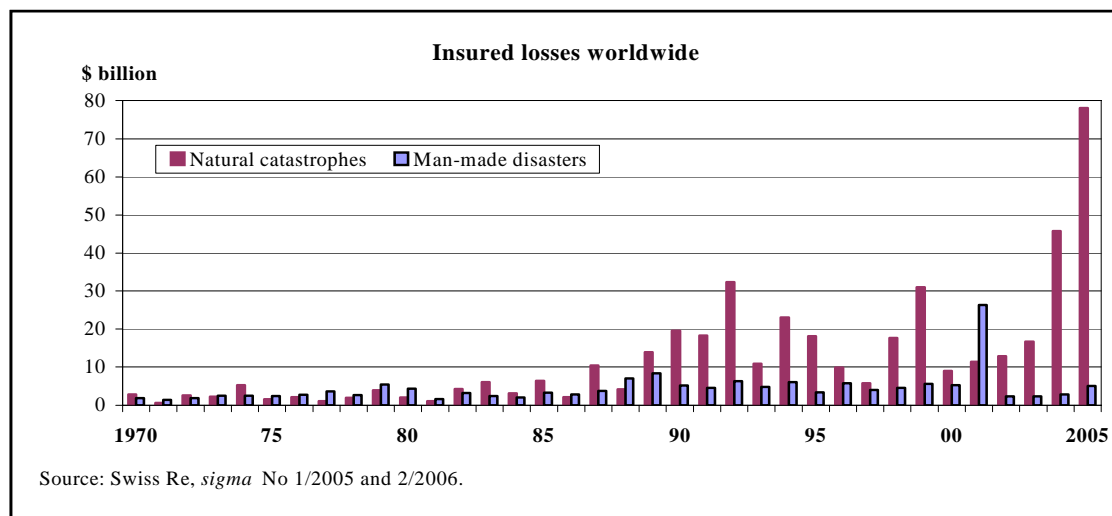
**SE** Maximum guaranteed rates: February 2005 2,75% (for new business from March 1 2005, for older business 3,0 - 3,5%).

## Box Developments on the reinsurance market

The reinsurance sector's development in the year 2005 was characterized by partially opposing aspects. Whereas some market participants continued to further improve and stabilize their technical results, some major catastrophes, especially USA hurricanes, entailed substantial losses.

The year 2005 was the most costly natural-catastrophe year ever due to both the frequency and the magnitude of the natural catastrophes. Total economic losses from natural catastrophes exceed more than \$210 billion in 2005, far greater than the economic losses for the previous year (2004: about \$145 billion). Total insured losses reach with more than \$75 billion also a new dimension as can be seen from the following figure A, which also includes insured losses from man-made disasters, like e.g. fires and explosions.

Figure A Insured losses worldwide from 1970 to 2005



Most insured losses were caused by Hurricane Katrina (estimated \$45 billion<sup>4</sup>), which make them by far the largest insured losses from a single event, far exceeding the previous largest insured hurricane losses resulting from Hurricane Andrew in 1992. The combined losses from Hurricanes Rita and Wilma are estimated to amount to another \$21.5 billion. For comparison, in 2004, itself a high-cost year, the total insured hurricane losses amounted to \$30 billion. The storms Erwin and Gudrun in Europe caused insured losses of estimated \$2.5 billion and the floods in the Alps of estimated \$1.7 billion (table A).

Reinsurers will have to bear the brunt of the insured losses caused by the Hurricanes Katrina, Rita and Wilma. Approximately one third is left with primary insurers in the USA<sup>5</sup>. As regards the regional distribution of the losses, the largest part will have to be borne by USA and Bermuda based companies.

<sup>4</sup> Private insurance: \$45 billion; National Flood Insurance Program: \$15 billion.

<sup>5</sup> See Swiss Re, *sigma* No 2/2006.

Table A Insured losses 2005

Date	Country/region	Event	Insured losses in \$ billion
August	USA	Hurricane Katrina	45,0
October	USA, Mexico, Caribbean	Hurricane Wilma	10,5
September	USA	Hurricane Rita	11,0
January	Europe (west, north, east)	Storms Erwin/Gudrun	2,5
August	Europe (Alps)	Floods	1,7

Source: Munich Re, *Annual review: Natural catastrophes 2005*.

The EU (re)insurers are differently affected by the Hurricanes<sup>6</sup>.

As a result of the Hurricanes, most reinsurance companies had to revise their profit expectations, others could keep their ambitious goals partly by realizing extraordinary income through sales of stockholdings. However, due to effective risk management techniques, reinsurers were not as hard hit as they could have been by the incidents. The resilience of the reinsurance sector can be attributed in large parts to its strong capital base, which had been rebuilt after the terrorist attacks in September 2001.

Although outright credit downgrades have been relatively limited, some reinsurers' credit outlooks have been revised from stable to negative. Swift capital raising and the expectation of higher premiums rates in 2006 have alleviated fears of capacity shortage. However, the heavy losses have led reinsurers to reassess their risk-management frameworks and risk appetite with a number of firms indicating their intention either to reduce significantly or completely withdraw from certain risks or from the retrocession market or to restructure their portfolios on a geographical basis.

Since mid-September 2005, the global reinsurance sector has raised almost \$22 billion via existing firms and by setting up new insurance companies, with most of the capital being raised by Bermuda-domiciled entities. The capital raised so far by new vehicles (\$9 billion) is slightly below the \$10 billion attracted by the new group of Bermudian firms, known as 'the Class of 2001', after the 2001 World Trade Centre (WTC) attacks.

The swift recapitalisation of the most-affected firms clearly alleviates some of the concerns about the availability of reinsurance capacity. Indeed, hedge funds appear to be a growing new investor class in reinsurance. Hedge funds are seeking to benefit from returns that are believed to be largely uncorrelated with other asset returns by providing capital to both existing and new reinsurance firms and by purchasing catastrophe bonds.

USA hurricane losses seem to have a positive effect on the underwriting cycle, which was softening across most lines until late-summer 2005. Recent contract renewals indicate stabilization or in some insurance classes, especially property

<sup>6</sup> Note that the figures may not be fully comparable as some companies estimate losses after-tax, others pre-tax, some reporting has been done on a gross basis, others on a net basis, and reporting has been done in different currencies and at different points of time.

and offshore-marine policies, even a significant increase in reinsurance rates in the aftermath of the USA hurricane losses. The formerly by market participants expected trend towards softening premium rates again seems to be stopped. Almost the same stable conditions are expected for the underwriting cycles during 2006. In anticipation of changes in regulatory requirements in connection with Solvency II, the demand for reinsurance coverage by European insurance companies seems likely to increase. This in turn may contribute to an improved financial situation of reinsurers in the medium term. However, on the contrary, the recent capital raising by new reinsurance firms has boosted the global reinsurance capacity, which may well limit the incumbent firms' ability to benefit from harder pricing in the medium to longer term.

\* \* \*

## Abbreviations

AT	Austria
BE	Belgium
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FI	Finland
FR	France
GR	Greece
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom

## **Appendix**

### The European occupational pension fund sector

#### **1. Scope of analysis**

The current scope of analysis on the financial conditions and financial stability of the pension fund sector is based on data provided by national competent authorities to Eurostat according to the data definitions prescribed in the Methodological Manual for Pension Fund Statistics<sup>7</sup>. Business statistics on pension funds are developed in the frame of Council Regulation n° 58/97 concerning structural business statistics. This regulation is the main legal reference for the collection, compilation and transmission of EU structural business statistics in the various sectors.

The coverage of the business statistics on pension schemes is generally limited to Pillar 2 schemes that are linked to a professional occupation. Such schemes usually operate on a funded basis. Moreover, they frequently provide cover for biometric risks (mortality, invalidity and longevity). Occupational schemes are organised either as autonomous pension funds, non-autonomous pension funds (or book reserve mechanisms) or group life insurance contracts.

Autonomous pension funds are established separately from any sponsoring undertaking or trade. They receive the contributions, invest them and pay retirement benefits. Non-autonomous pension funds mainly refer to the book reserve system. The employer undertakes to pay benefits to his employees and makes provision for commitments on the liabilities side of his balance sheet. In the case of group life insurance contract, the contributions are paid to a life insurance company which invests the contributions and pays the benefits. These schemes are excluded from the pension business statistics as they are already covered by the insurance services statistics.

Likewise, Pillar 1 compulsory social security schemes and Pillar 3 individual retirement savings are excluded from the scope as these are not covered by the business statistics on pension schemes. It should be noted that not all countries of the EEA operate occupational pension provisions (see annex 1 for an overview of the reporting basis for each country). Data availability varies substantially among the various countries which hampers a thorough analysis and comparison of the pension market developments between countries.

In September 2005, the European Pensions Directive (IORP Directive) entered into force. The directive provides for the activities and supervision of institutions offering occupational pension schemes. Marking a first step on the road towards a European internal market for occupational pension schemes, the directive enables pension funds established in one member state to implement the pension schemes of employers from other member states. The directive focuses on all pension products offered by pension funds as well as by life insurers.

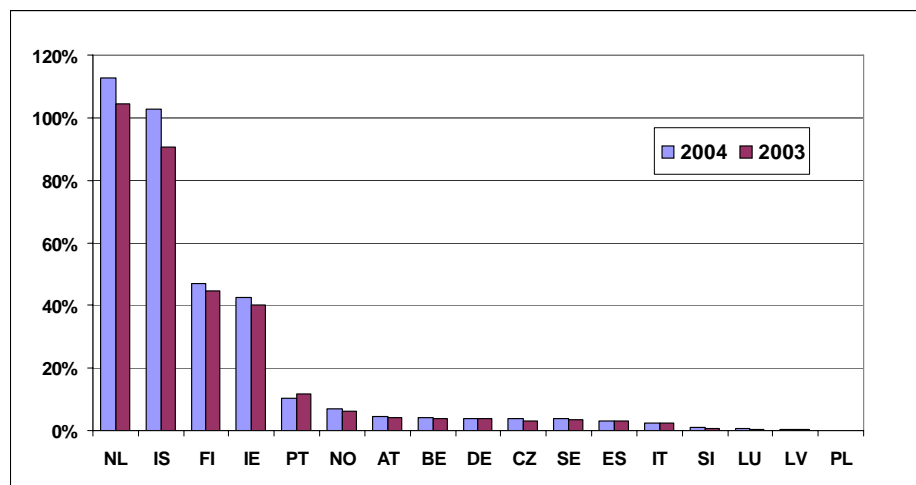
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<sup>7</sup> HYPERLINK[http://forum.europa.eu.int/irc/dsis/bmethods/info/data/new/embs/ISPF5\\_Oct01\\_doc14\\_PF\\_Manual.pdf](http://forum.europa.eu.int/irc/dsis/bmethods/info/data/new/embs/ISPF5_Oct01_doc14_PF_Manual.pdf)

## 2. Accumulated wealth of the occupational pension funds sector

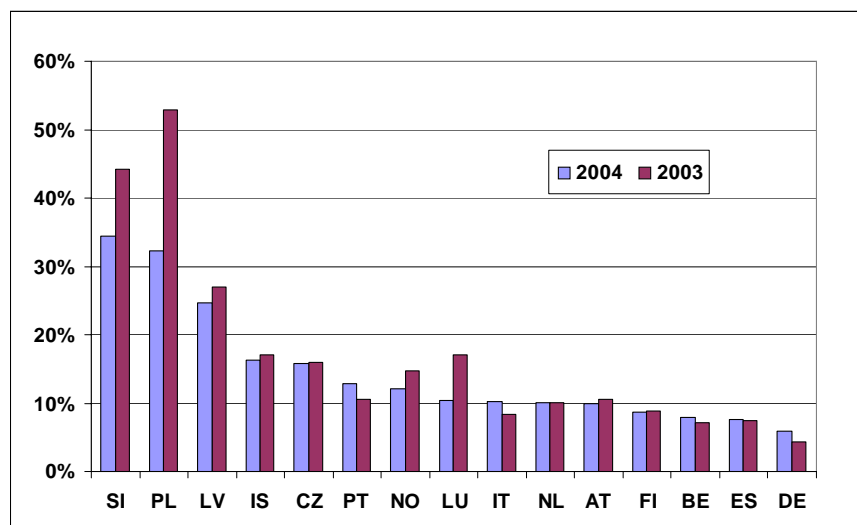
Total size of assets as a % of GDP gives a good indication of the relative wealth accumulated by the pension fund sector. The size of pension funds is to a large extent related to their maturity and labour market coverage (figure A1).

Figure A1 Relative size of pension sector: Total assets as % of GDP (2003 and 2004)



Countries that have started from a relatively small asset base are experiencing strong growth in net additions to the fund (figure A2).

Figure A2 Net additions (2003 and 2004) in % of total assets



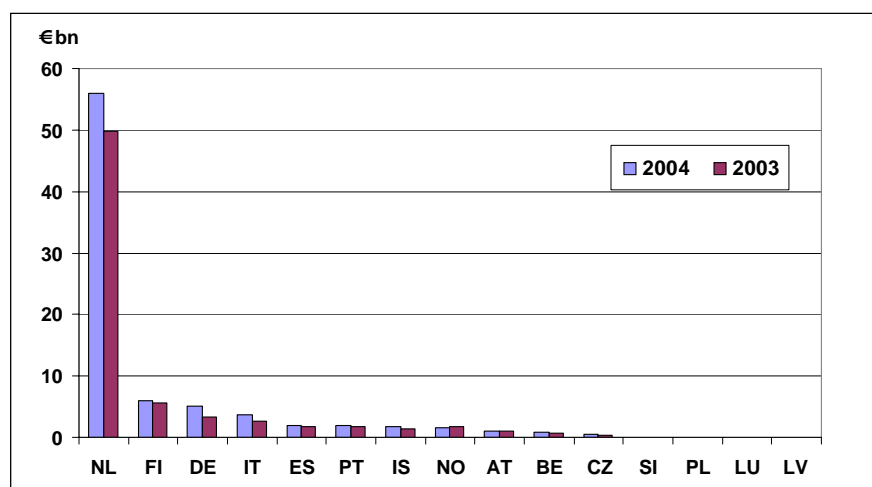
In general, growth of the occupational pension fund sector is expected to accelerate further over the coming decade as public and private initiatives are intensifying to help prepare for the rapid demographic changes in terms of a declining ratio of contributors-to-beneficiaries. Pension reform efforts are geared towards the economic implications of increasing life expectancy and promoting

retirement provisions through Pillar 2 and Pillar 3 pension schemes. Growth in these types of schemes will help diversify some of the longevity risks, especially in countries that traditionally rely on Pay As You Go (PAYO) social security systems. By supplementing PAYO state pensions with funded private pensions, the cost and risks of an ageing population can be spread more evenly between generations.

### 3. Development in contributions and benefits

Funding sources of pension funds are composed of (premium) contributions received, provided by employer (sponsoring company) and employee, and income from the sale of assets and dividends and interest received. Funding drains are pension benefits paid and losses made on the sale of assets. The net cash flow between revenues and expenditures is a good approximate measure for the net additions to the fund, which is related to the absolute size and maturity of the sector. Large and mature markets generate substantial amounts of cash flow (figure A3). However, when related to the size of assets the less mature markets seem to be adding wealth to their pension fund sector at a faster pace.

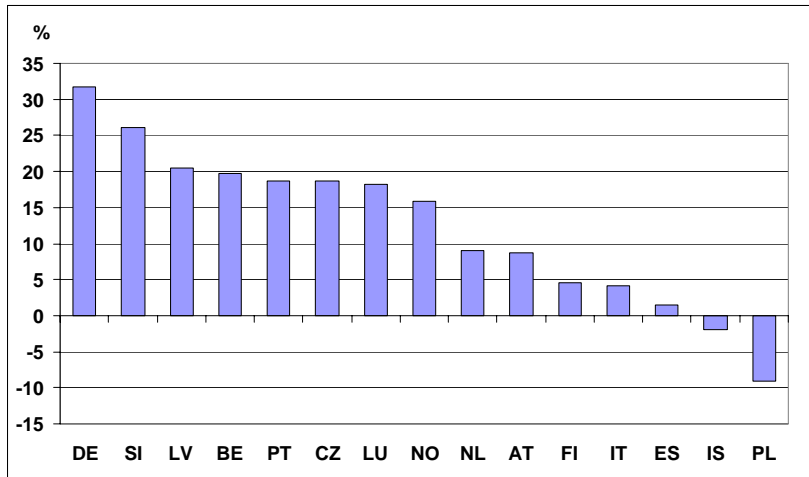
Figure A3 Cash flow\* (2003 and 2004)



\*Defined as total net contributions minus total net benefits plus net investment income plus other income minus other expenses

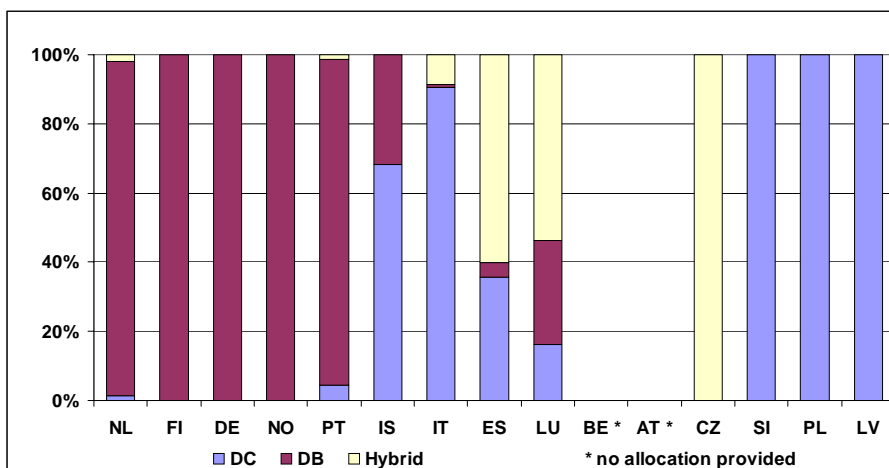
Growth rates in pension contributions vary substantially across countries, ranging from over 50% to growth for some markets (figure A4).

Figure A4 Growth (%) between 2003 and 2004 of gross premium contributions receivable



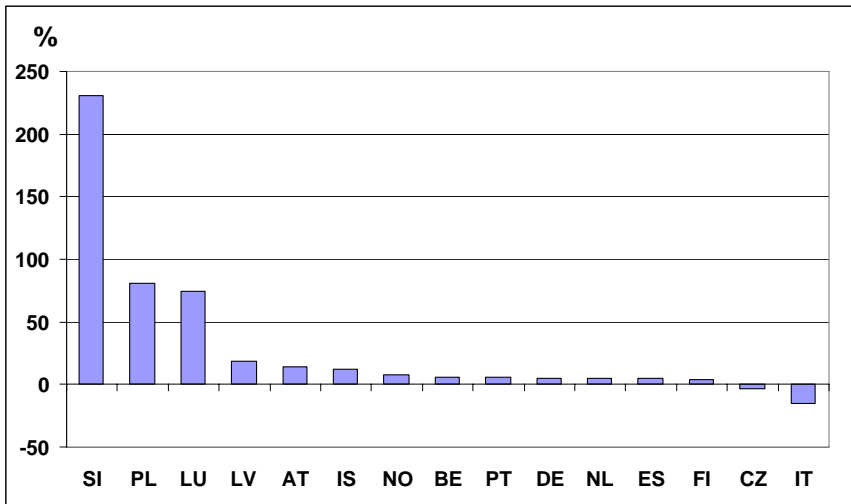
Particularly for defined benefit (DB) schemes, (premium) contributions are expected to rise further as a means of reducing plan deficits in some individual schemes and setting off the growth in pension obligations due to the ageing population. In a number of countries defined benefit (DB) plans are gradually phasing out and being replaced by new defined contribution (DC) plans. This trend will help reduce the vulnerability of the pension fund sector to funding risk as a growing part of the investment risk will be transferred to the household sector, especially for those countries that largely operate DB plans (figure A5).

Figure A5 Allocation of gross contributions receivable between DC, DB and Hybrid schemes (2004)



In most countries, benefit payments have been increasing slowly over the last few years, with some exceptions (figure A6). However, substantial increases can be expected over the next few years when members of the baby boom generation start benefiting from retirement provisions.

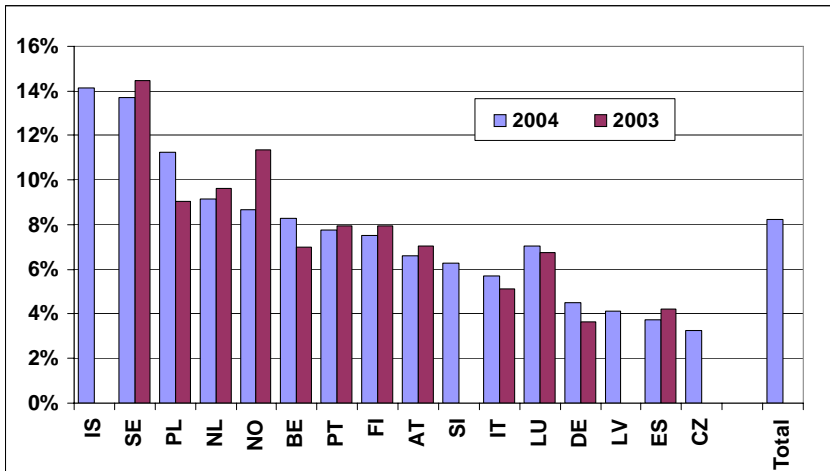
Figure A6 Growth (%) between 2003 and 2004 of gross benefits payable



#### 4. Financial strength

Pension fund financial strength in terms of available funding as a % of accrued (or projected) value of pension obligations and asset cover ratio's is heavily dependent on asset performance. The recovery of financial markets in 2003 and 2004 (see figure 3A in the main text) has generated positive returns on assets in all reporting countries. However, differences in return rates between countries are substantial (figures A7).

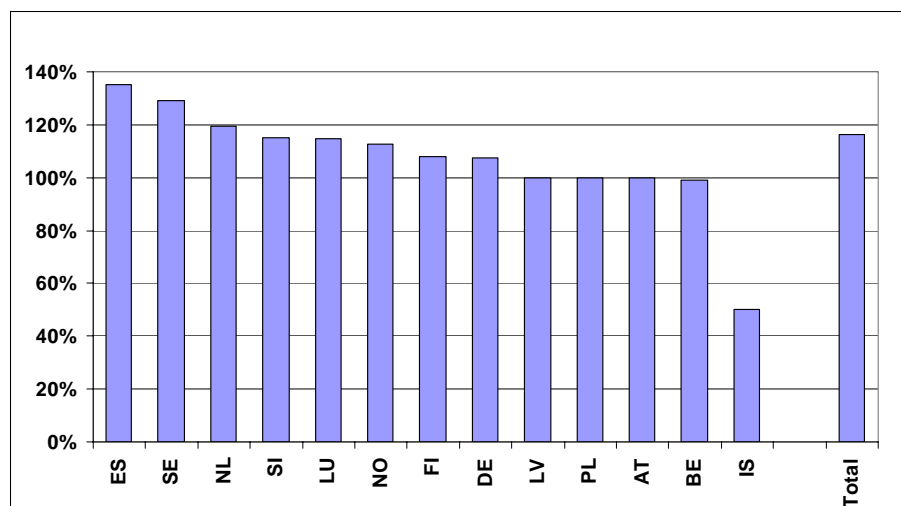
Figure A7 Return on assets (based on net investment income)



These positive trends are also reflected in the adequacy of cover ratios of technical provisions for most countries (figure A8). It should be noted however, that the actuarial basis of calculating minimum technical provisions differs

between jurisdictions (ABO<sup>8</sup> method, PBO<sup>9</sup> method, use of technical interest rate or term structure).

Figure A8 Average cover ratio (%) for 2004



Note for Portugal: No figures regarding technical provisions are provided due to the distinctive legal framework under which Portuguese pension funds operate.

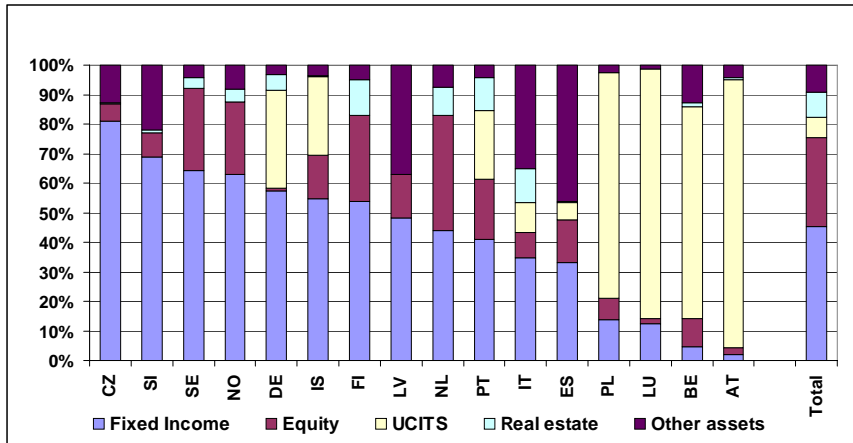
## 5. Asset allocation

The industry seems to be moving towards more diversity in the asset portfolio, although differences across countries exist. In the majority of countries, bonds are the predominant investment instrument ranging up to 80% of the portfolio (figure A9). Other countries are heavily exposed towards equities. In several countries shares in mutual funds (UCITS) account for more than 70% of the portfolio, although these funds are mostly invested in bonds. Some countries report a relatively important exposure to real estate assets (about 9% on average), or other 'high risk' asset categories, like commodities and hedge funds (about 10% on average), as a means of diversifying risks.

<sup>8</sup> Accumulated Benefit Obligation (ABO) refers to a method for calculating the present value of future pension obligations towards employees on the basis of actual salaries on a particular valuation date.

<sup>9</sup> Projected Benefit Obligation (PBO) refers to a method for calculating the present value of future pension benefits towards employees on the basis of assumptions about future salary increases as of a particular valuation date.

Figure A9 Asset allocation between fixed income, equity, UCITS, real estate, 2004



It can nonetheless be expected that pension funds might consider to diversify away from equities as a market downturn as seen in 2000 can quickly lead to a fall in funding surpluses. In addition, stock market volatility exposes funds to larger swings in the coverage of their pension obligations, which under IAS/IFRS accounting rules will be reflected in the sponsoring entity's balance sheet.

However, in a number of countries pension funds are also exposed to interest rate risk of their bond holdings, especially on defined benefit plans. In case of defined contribution plans, some countries are required to guarantee a return on employer contributions as well as on employee contributions, such that the sponsoring company is exposed to such investment risk. Especially in the current low interest rate environment, it might be difficult for funds to obtain the required returns, as a result of which additional contributions might be needed for those funds going into a funding deficit.

## 6. Degree of concentration

Some countries seem to be characterized by a high degree of concentration within the pension fund sector. This feature is mainly related to the less mature markets or countries with limited labour market coverage, where a limited number of funds manage most of the assets.

Table A1 Concentration\* on the pension market (Top 3 entities, Top 5, Top 10)

Country	CR 10	CR 5	CR 3
Poland		100%	99%
Latvia		100%	97%
Slovenia		100%	89%
Slovakia	100%	88%	73%
Czech Republic	98%	78%	55%
Sweden	94%	74%	60%
Finland	93%	89%	73%

Austria	92%	79%	69%
Spain	72%	52%	39%
Netherlands	63%	53%	46%
Norway	56%	42%	34%
Portugal	52%	36%	26%
United Kingdom	20%	12%	8%

\* as % of assets held

Note for Spain: the concentration ratio is calculated taking into account the largest managing entities of pension funds (total Spanish pension funds sector).

## **Annex – Scope of the pension fund statistics**

### Austria:

Data includes all occupational pension contributions to Pension Companies covered by the Austrian "Pensionskassen Act". The Pillar 2 provisions are not compulsory. Contributions cover about 11% of the working population.

### Belgium:

Pension fund statistics relate to institutions for occupational retirement provisions, i.e. occupational pension funds and so called "pensioenkassen" for the self-employed.

### Denmark:

Data on pension funds are included in CEIOPS' statistical framework for the insurance sector.

### Finland:

Data includes also statutory pension schemes operated by individual companies/foundations/funds. Volumes of occupational pensions by directive 2003/41/EC are only about 10% of total figures.

### Germany:

In Germany, there are five different types of implementing occupational pensions:

- Direktzusage (book reserves)
- Unterstützungskassen (support funds)
- Direktversicherung (direct insurance)
- Pensionskassen (pension institutions)
- Pensionsfonds (pension funds).

The pension fund statistics relate to Pensionskassen and Pensionsfonds.

### Italy:

Data cover autonomous pension funds instituted both as independent legal entities (contractual pension funds) and as pools of segregated assets (open pension funds) set and managed by financial intermediaries. Data do not include book reserve schemes.

### Luxemburg:

All the pension funds under supervision of the CAA are up to today defined benefit pension plans, financed by the aggregate cost method.

### The Netherlands:

Pension fund statistics relate to all pillar 2 institutions for occupational retirement provisions.

### Norway:

Pension fund statistics relate to institutions for occupational pensions (so-called "pensjonskasser"), and cover both private and municipal pension funds.

### Poland:

Occupational pension schemes operated in Poland cover:

- occupational pension fund
- agreements with life insurance companies
- agreements with investment fund companies
- foreign management companies

All information included in the pension funds statistics relates only to occupational pension funds. The activity of the occupational pension funds in Poland is based on similar regulations as the open investment funds.

Portugal:

Data include all occupational pension schemes including funds from the banking and telecommunication sectors established through collective agreements.

Slovakia:

No data was reported for 2003 and 2004 as recent pension system reforms have introduced mandatory funded occupational pensions as of January 2005.

Spain:

All the data relates only to occupational pension funds (by Directive 2003/41/EC) which account for about 40% of the total pension fund sector. In addition, there are also individual and associated pension funds operated in Spain.

Sweden:

The Swedish pension fund statistics refers to a special form of "friendly societies" and accounts for less than 10% of the overall non-state related occupational pensions. The remaining occupational pensions are almost entirely covered by life insurance companies.

\* \* \*