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Risk Outlook

Introduction

CEIOS’ Financial Stability Committee (FSC) has prepared a new report on the financial stability of the insurance market and the pension fund sector in the EU/EEA as requested by CEIOPS’ Members and the EFC. An interim report on the financial conditions and financial stability in the insurance sector had been sent to the EFC Financial Stability Table for its discussion on the macro-financial conditions and overall stability of the EU financial system at its meeting early September 2007. The current report is based on the main findings of the semi-annual analysis.

This current report is based on:

- supervisory data on the insurance and reinsurance sector for 2004-2006, which are summarized in the statistical annexes (SA) as well as fast-track reporting for parts of the reinsurance sector for 2006;
- supervisory data on the pension fund sector for 2003-2005 which was collected for the Spring 2007 report. Therefore no new information on the European pension fund sector was provided since the Spring report;
- qualitative information from insurance supervisors pertaining to the insurance market situation and the occupational pension fund sector in the respective countries;
- market information.

The report addresses the following issues:

1. Main issues and conclusions
2. Developments in the European insurance sector
3. Developments in the reinsurance sector
4. Developments in the European pension fund market
1. Main issues and conclusions

Summary of recent trends and developments

- Most countries reported a high premium growth in the life insurance sector in 2006 and the first half of 2007. In the non-life sector, premium growth is generally more moderate.

- Owing to sound underwriting results in non-life insurance and stable or rising investment income in life insurance, 2006 was overall a good year for the insurance sector in the EU/EEA member states. Results in the non-life sector continue to remain healthy. Various member states show a dampening effect of enhanced competition on premium income, which in many member states seems to be accompanied by a low growth in claims. The life sector has shown a steady or continued premium growth, in many member states mainly fed by a strong growth of unit-linked products, with guaranteed contracts still remaining the main source for premium income.

- The European reinsurance sector was hit by a number of weather-related events in 2007, including substantial losses from hurricane Kyrill in Western and Central Europe and flooding in the UK. Meanwhile, legal developments meant that insured losses from hurricane Katrina of 2005 might be less than expected.

- Solvency has remained adequate for the whole European insurance sector and appears to improve somewhat, 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.

- The insurance industry as a whole faces several risks and challenges, of which the most prevalent are financial risks, e.g. the risk of a prolonged period of low or even again decreasing interest rates as well as risks related to equity markets. Member states also report underwriting risks in non-life insurance and longevity risk in life insurance as important risk factors.

- Concentration in the insurance market is high in most of the smaller EU countries. In the new member states with a high degree of concentration, ratios tend to gradually decrease as competition picks up, i.e. with the entry of new foreign players. In the largest EU countries, generally with highly fragmented markets, concentration increased in 2006 on the other hand.

- Foreign presence is particularly important in smaller new member states, where the largest part of the insurance sector is foreign-owned. Foreign entry mainly takes place through separate legal entities, while free provision of services is rare. The parent entities mainly are large internationally active groups.

- Pension reforms in Europe aim to address the economic implications of ageing population which entails an increasing 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 funding risk related to traditional social security systems.

- The financial position of the defined benefit (DB) occupational pension fund sector has improved in most member states, due to positive developments in equity markets as well as growth in contributions. In a number of member states DB plans are gradually being phased out and replaced by new defined contribution (DC) plans. This gradual trend will help reduce the vulnerability of the pension fund sector to funding risks traditionally related to DB plans. However, it will also mean a transfer of investment and longevity risk from the pension fund sector to the household sector and may result in more focus on private pension plans (pillar III).

- According to the information received from CEIOPS Members, direct exposures to Asset Backed Securities instruments or hedge funds with potential US subprime mortgage risk are of secondary importance in CEIOPS’ sectors. Therefore neither insurance nor pension funds are heavily affected by the US subprime mortgage turmoil directly.
2. Developments in the European insurance sector

*Market developments*

Over 2007, the European insurance and reinsurance sectors underperformed the European-wide share index (Figure 1). Reinsurers' stock prices suffered from potential high losses related to winter storms that swept Europe in the beginning of the year, but caught up somewhat later on in the year. The life insurance sector recorded the poorest performance. This could be related to the higher sensitivity of this type of activity to the adverse stock market circumstances that were observed at some points of time this year, given the higher importance of investment income in the net result of these companies.

In terms of financial strength ratings, European insurers have been subject to more upgrades than downgrades since the end of 2005 (Figure 2). Most of the insurance ratings have a stable outlook, which indicates that insurance companies' results and financial situation will remain robust in the months ahead.

*Figure 1: EU stock market indices (31/12/2006 = 100)*
Since last year’s reporting, Standard&Poors however revised its outlook on the leading European insurance groups from stable/positive to stable during the summer of 2007, reflecting that a peak in financial strength has been reached (see Figure 3)
Development in premiums and claims

Most countries reported a positive premium growth in the life insurance sector in 2006 and the first half of 2007. In fact, total gross premiums in life insurance enterprises increased by 15.1% from 2005 to 2006 (see Figure 4), while gross written premiums for non-life insurance enterprises increased by 14.5%. This year however, the high growth percentage in one country as a result of the privatization of the health insurance sector, makes that the aggregate growth percentage according to CEIOPS statistics is relatively high also in non-life insurance. Excluding the non-life activity of that country, the total growth rate is 5.5%. In the non-life sector, year on year premium growth is generally more moderate. The corresponding growth rate for composite insurance enterprises was 9.8%.

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1 Explanatory note - Rating outlooks are defined as follows: A Standard & Poor’s rating outlook assesses the potential direction of a long-term credit rating over the intermediate term (typically six months to two years). In determining a rating outlook, consideration is given to any changes in the economic and/or fundamental business conditions. An outlook is not necessarily a precursor of a rating change or future CreditWatch action.

- Positive means that a rating may be raised
- Negative means that a rating may be lowered
- Stable means that a rating is not likely to change
- Developing means a rating may be raised or lowered
Life sector

The high premium growth in life insurance is mainly related to households' increased interest in (pension) savings insurance contracts, and less so to more traditional insurance contracts such as guaranteed rate or death benefit products. Especially unit-linked life insurance products attracted new premiums, bringing the share of this type of product to 29.5% of total life insurance premiums in 2006, compared to 27.7% in 2005 (Figure 5). This trend now exists for several years and some countries reported it to continue also in the first half of 2007.

The popularity of unit-linked contracts can be attributed to supply side pressures, whereby insurers promote products which reduce their investment risk and in some cases also have a lower cost structure. Also increased demand, especially in countries - mainly new member states - where growing private pension systems are based on these products, contribute to the rising importance of unit-linked products. The increase in unit-linked and index-linked products can also be related to the current low interest rate environment, which gives policyholders an incentive to choose products that are linked to equities and other assets with a higher expected return than interest bearing securities. The move away from guaranteed products to unit-linked products means that policyholders bear a larger part of the investment risks.
Now that interest rates are slightly increasing, other fixed return savings products may have become more attractive compared to guaranteed life insurance products. This is especially the case for insurance contracts that guarantee a lower rate of return, given changes in legislation regarding the maximum rate or changes in companies' risk management, combined with an increasing trend in interest rates on bank deposits.

Regarding unit-linked insurance, a number of countries report increased competition from mutual funds. As a result, a number of countries report a decrease or a lower growth of life insurance premiums.

In addition, changes in tax rules also have had an important impact on collected life insurance premiums. In countries where tax advantages for life insurance products have been extended, premiums in general increased sharply as households in some cases arbitrage between similar investment opportunities on the basis of tax considerations. In most cases, these increases in tax advantages are aimed at increasing households' retirement savings. In other jurisdictions, the tax regime for certain life insurance products became less favourable, having a negative impact on premium growth.

Over the longer term, premium growth is expected to remain robust in countries where changes in the pension system induce households to save more through life insurance products or induce companies to step up their occupational pension plans based on group insurance contracts.

The results of the life insurance business are highly dependent on the yield of the investment portfolio. Given the favourable stock market environment in 2006, results remained healthy. In the first half of 2007, the environment was somewhat more subdued and as of August 2007, the return on the investment portfolio is likely to have suffered from higher volatility and lower prices on worldwide stock markets and potentially also from problems in certain credit markets. Moreover, insurance premiums in some countries have proved to be too low to cover for all risks. In these countries, premiums have therefore been raised, based on new longevity and/or health care cost estimates.
**Non-life sector**

The growth in gross written premiums for 2006 in the non-life sector is generally more moderate than in the life sector, reflecting the mature nature of this market. Moreover, in the majority of countries, competition seems to increase, which has a negative impact on growth rates. At the same time, both claims and operating costs remain under control, i.e. as a result of sound underwriting policies and the lower frequency and severity of claims - for instance in motor insurance, which is in most countries the dominant class of property and casualty activity. Another factor that contributed to the favourable development of claims was the absence of important (natural) disasters in 2006. As a result, the net loss ratio in the majority of countries slightly declined or remained stable (see Figure 6).

In other countries, the low premium growth was on the other hand accompanied by larger claims, entailing a rise in the net loss ratio. Nevertheless, these ratios remain globally very sound, with an average of 71.8% for the EU (compared to 71.3% in 2005).

Another factor that has had a positive impact on underwriting profits in some countries in 2006 was the decline in the cost of reinsurance protection. This development does not follow from a decline in reinsurance premiums rates- which tended to move up - but from insurers' holding a higher retention. In years with relatively few and/or small claims, as in 2006, the strategy of higher retention of risk has a positive impact on profitability. In years with important claims, this could lead to lower profits.

**Figure 6: Net loss ratio**

The aggregate expense ratio for the reporting countries was 23.5%, in 2006, compared to 22.8% in 2005. In sum, the aggregate combined ratio increased slightly from 94.1% to 95.3% in 2006 (Figure 7).
The same trend has been observed in the first half of 2007, although competition is reported to further intensify. However, in a number of countries, the windstorm Kyrill has had an important impact on claims ratios and combined ratios which are expected to rise further throughout 2007. These natural perils seem to have triggered rate increases in certain cases.

Investment income also had a positive impact on the technical result in non-life insurance in 2006, so that in most countries, including those countries where the combined ratio increased, profitability in non-life insurance remained sound.

Financial strength and profitability

A positive profit development in 2006 and - for the countries that provided information - in first half of 2007 has improved the financial strength of the EU/EEA insurance sector. As a result, the solvency ratio (available solvency margin divided by required solvency margin) has increased. There were no severe insolvencies reported in the insurance sector in 2006 or so far in 2007.

The aggregate solvency ratio for the reporting countries has increased during 2006 for both life and non-life companies, as well as composite insurers. The aggregate solvency ratio in the life sector was 302% at end of 2006, up from 231.2% at end 2005 (Figure 8). The aggregate solvency ratio in the non-life sector was 448.9% at end 2006, up from 364.8% at end 2005. For composite insurers, the corresponding figure was 335.4% at end 2006, slightly down from 347.0% at end 2005. The solvency ratio in non-life insurance may, in the first months of this year, have suffered from the impact of hurricane Kyrill in a number of countries.

The low long term interest rates in recent years have raised some concerns over the ability of life insurance companies to meet the long-term obligations for products with guaranteed interest rates. In most countries, this is however not reflected in the solvency ratio, as liabilities are not valued at market value. The rise in long-term interest rates observed in 2006 indicates a higher probability that future investment returns will exceed the guaranteed rates (see Figure 8), with eventually a positive impact on companies’ solvency situation.
Supervisors in many countries have reported the improvement, further elaboration or more frequent use of existing sensitivity tests, scenario analyses and forecasting exercises to evaluate the financial situation of insurance firms. The improvements for instance include a move to full fair value (also for the liabilities), adaptations in view of the introduction of Solvency II and the second phase of IFRS 4. The test do generally not include the impact of changes in insurers' behaviour as a reaction to the shocks (i.e. management actions) and focus on instantaneous impacts whereas stress situations in reality build up over a longer period of time.

Supervisors also report to have upgraded their supervisory practices through more focused on-site inspections (also in foreign branches), by adapting investment limits for credit risk and by developing better IT tools. A number of supervisors also lowered the maximum technical rate for guaranteed return products.

Overall profitability has remained almost stable in the life sector as well as the non-life sector the last years. Fairly good returns on equity investments (see Figure 9) contributed to positive profits in the life sector in 2006, while profits in the non-life sector were also favoured by good underwriting results in most countries. Measured by the return on equity\(^2\), profitability in 2006 in general looks healthy.

\(^2\) 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 accounts. In countries where equalisation provisions are not built up, the companies normally have to show a higher equity capital.
The aggregate return on equity has decreased the over last three years for composite companies, whereas it remained almost flat for life and non-life companies. The aggregate (weighted average$^3$) return on equity in the life sector was 14.1% in 2006, compared to 14.8% in 2005 (see Figure 10). The aggregate return on equity in the non-life sector was 15.4% in 2006, up from 13.3% in 2005. The corresponding figure for the composite companies was 14.2% in 2006, down from 16.7% in 2005.

* Profit or loss after tax for the financial year divided by total capital and reserves. No data available for GR and UK.

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$^3$ Weighted by total of capital and reserves.
**Asset allocation**

There are no apparent trends in the overall asset allocation the last couple of years. Many countries report a stable mix of assets. This notwithstanding, the aggregate equity share of total investment assets for the entire insurance sector (excluding reinsurers) increased slightly during 2006\(^4\). This share (weighted average\(^5\)) increased from 27.8% in 2005 to 28.3% at the end of 2006, (see Figure 11A). Fixed income investments amounted to 63.9% of total investment assets at the end of 2006, down from 64.2% at the end of 2005. On average, life enterprises invest more in fixed income products (bonds and loans) and less in equity compared to the non-life insurers (see Figure 11B).

Many countries experienced large reductions in equity exposure between 2000 and the beginning of 2003. Since then equity exposure has gradually increased in most countries, mainly as a result of the recovery of equity prices. Moreover, the relative high profits in 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 higher volatility assets. In most cases the exposure is still considerably lower than in 2000.

In the current context of higher uncertainty and volatility, one could expect equities to be again replaced by bonds to some extent. 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, may provide a further incentive for investing in long-term bonds that match the long-term liabilities.

*Figure 11A: Asset allocation insurance sector*\(^\ast\) 2006

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<th>Country</th>
<th>Fixed income</th>
<th>Equity and participations</th>
<th>Other investments</th>
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\(*\) Excluding the reinsurance sector. Investments for the benefit of policyholders who bear the investment risk are excluded.

Fixed income covers debt securities and other fixed income securities, loans guaranteed by mortgages and other loans. Equity and participations cover shares and other variable-yield securities, units in unit trusts and participation in investment pools. Other investments cover lands and buildings deposits with credit institutions and other financial investments and deposits with ceding enterprises.

\(^4\) Investments for the benefit of policyholders who bear the investment risk are excluded.

\(^5\) Weighted by total assets.
According to current valuation standards, in some countries certain items on the balance sheet are reported at market value (i.e. including capital gains and losses), such as equities and other financial assets, whereas other items are reported at acquisition cost, such as properties.

Figure 11B: Asset allocation by sub-sector* 2006

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. On the basis of data collected through a recent questionnaire on hedge funds by the OECD Insurance and Private Pensions Committee (IPPC), it appears that direct exposures of insurers to hedge funds vary from zero/negligible to more than 3% of total assets, such as in SE6 (see Figure 11 C). However, in most countries, no quantitative information is available on exposures.

Figure 11C: Insurance industry’s hedge fund exposure (2006)

The insurance industry's investment exposure to hedge funds is generally expected to increase or remain stable. Such new types of investments could expose insurance companies to new categories of risks, which are not necessarily well understood, potentially leading to underpricing of certain risk and unexpected losses.

There are also reports that insurance companies are adapting their fixed income investments towards higher return bonds, thereby taking on more credit risk.

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6 Including pension funds’ exposures.
In some countries, insurance companies have also built up considerable exposures to real estate markets. Any adverse development on this market could thus also have a negative impact on insurance companies’ financial position.

On the positive side, insurance companies also tend to increase the international diversification of their investment portfolio, investing mainly in bonds and equities from other EU countries.

**Risks and challenges**

The most important risk reported by supervisors is interest rate risk in the case of life insurance. Given the still important stock of guaranteed return contracts in most member states, of which the duration is often longer than that of the covering assets, a renewed decline in long term interest rates would further weaken insurance companies’ capacity to repay relatively high rates of return, guaranteed when market rates still were considerably higher. While the upward movement in rates somewhat eased the burden on insurance companies, companies still gradually reinvest old bonds with higher coupons at the current lower market rates. Insurance companies managed this risk by lowering the guaranteed returns and by lowering the duration of their contracts.

However, as the changes to the terms of these contracts only relate to the new contracts, the effect on the total portfolio will only be visible within a few years time. Moreover, in some cases, these new contracts may contain embedded options, for instance in case policyholders are allowed to repurchase their contract at low cost before maturity, which could lead to large-scale lapsation in case of a spike in interest rates.

Insurance companies also adapted their investment allocation to improve the risk-return balance of their total portfolio. They stepped up investments in structured finance products such as traditional asset-backed securities or CDOs, hedge funds, private equity and commodities. Although the share of such asset classes in these insurance companies’ investment portfolios has been limited up to now, such a diversification will gradually expose insurance companies to new categories of risk.

In this connection, it could be expected that certain EU insurance companies are also exposed to US sub-prime mortgages. According to the available information however, neither insurance nor pension funds are heavily affected by subprime risks directly. According to the information received from CEIOPS Members, direct exposures to Asset Backed Securities instruments or hedge funds with potential US subprime mortgage risk are of secondary importance in CEIOPS’ sectors. However supervisors have to carefully follow market developments, as well as assess the potential indirect effects and contagion risks across sectors or within conglomerates.

Risks related to insurance companies’ exposure to equities may have increased now that market conditions seem to deteriorate, i.e. causing a pick up in volatility and, hence, higher hedging costs. Companies moreover have increased their exposures to equities in recent years and months.
Longevity risks remain important in life insurance. Mortality tables used by insurance companies are constantly improving, which already gave rise to revisions in premium rates and provisioning, but it inherently remains difficult to estimate future longevity, so that it cannot be excluded that current premium and provisioning levels are not yet adequate. This problem is mainly relevant in countries where insurance companies frequently sell annuities.

In non-life insurance, a large number of countries point to the expected raise in claims and ensuing deterioration of underwriting results. The windstorm Kyrill may already have a negative impact on 2007 results in this respect. In addition, competition is expected to remain fierce and reinsurance costs are expected to rise, possibly inducing insurers to take on less reinsurance protection. From a longer-term perspective, climate change is expected to lead to a shift in the distribution of insurance losses towards tail values: average (i.e. expected) annual losses may increase by a much smaller amount than the extreme values. Hence, insurance companies may have to cope with larger amounts of unexpected losses at certain points in time. This could affect the financial position of the global reinsurance sector and, to a more limited extent, that of European direct insurers.

Certain countries also point to the risks associated with international expansion. The possible limited product awareness of the host market, its different legal and cultural specificities, may pose risks for companies heavily investing abroad.

Insurance companies should also ensure that their products are sufficiently transparent and understandable for the retail investor in order to avoid legal and/or reputational risks.

Concentration and internationalisation

Concentration in the insurance market is high in most of the smaller EU countries and a number of larger new member states. In the new member states, concentration ratios tend to gradually decrease as competition picks up, i.a. with the entry of new foreign players. In the largest countries with highly fragmentated markets concentration increased in 2006 on the other hand.

Changes in the concentration ratio may be partly due to mergers and acquisitions between companies active in the same country. In 2006, a number of big deals have been concluded. One may note that M&A operations follow a cyclical pattern, with more and bigger deals being concluded in periods of high profitability, high equity valuations and comfortable capital buffers. Such a benign environment has existed in recent years.

Also the entry of foreign players may have an important impact on the structure of the insurance market in a particular country. Foreign entry can take place through free provision of services (FPS) without physical presence in the host country, through branch activity (physical presence in the host country by the same legal entity as in the home country) and through a subsidiary (separate legal entity in the host country). Foreign presence is particularly important in smaller new member states, where the largest part of the sector is foreign-owned. In addition, in countries where foreign companies are less prevalent, their market share is reported to be rising. Foreign entry mainly takes place through separate legal entities (subsidiaries), while FPS is
rare. The parent entities mainly are large internationally active groups. The activities of these groups in individual host countries are in some cases not material compared to their total activity or even to their activity in the home country. However, as a whole these groups sometimes have a large market share outside their home country.

Figure 12: Gross premiums written by foreign branches as a % of total activity in the country (2006)

While some countries experience a high degree of foreign presence in their insurance sector (i.e. inward internationalisation), members’ contributions point to the fairly limited, although rising, foreign activities of their respective insurance sector (i.e. outward internationalisation). Indeed, foreign activities are concentrated with a relatively small number of large insurance groups.

The reasons mostly cited for developing international activities are to grow - for instance when the domestic market is too small, highly competitive or saturated -, to realise cost synergies, to decrease the company’s risk profile or to gain size relative to peers. The risks include the limited knowledge of the local markets, possibly entailing reputational and legal risks; regulatory differences (taxation, pension system, company law, accounting, supervision); foreign exchange risk; interest rate risk and the greater complexity of internationally active groups.

3. Developments in the European reinsurance sector

General comment

2007 to date has seen a number of significant weather events. In January Winter storm Kyrill hit Great Britain and central Europe, especially Germany and Poland, and caused severe damages. The heavy rainfall in the UK during the summer months caused insured damages of around GBP 3.0bn (EUR 4.44bn).
Insured losses for Katrina – the severe hurricane that hit New Orleans in August 2005 – will possibly be less than calculated. Three big American insurers won their law-suit dealing with the problem whether they have to pay only the damages caused by the hurricane or whether they must also pay the damages that were caused by the floods occurred by the hurricane. The plaintiffs already announced to call a higher court. They are of the opinion that the insurers must also pay for the damages caused by the floods, because the dikes weren’t appropriate. Because of this, it shouldn’t be of relevance that the insurance contracts didn’t cover damages caused by floods.

Structure of the European reinsurance market

European reinsurers play a dominant role in the world reinsurance market. Four of them are present among the top 5 reinsurance groups in 2006. The two biggest reinsurance groups in the world are based in Europe. By decreasing order of net premiums earned these companies were Swiss Re, Munich Re, Hannover Re and Lloyd’s7. As regards the regional distribution within the EU major reinsurers have their headquarters domiciled in France, Germany and the UK.

Developments in the reinsurance sector in 2006

2006 was a light year for natural catastrophes. The hurricane season in the US was very calm, in Europe, too, there were no really expensive catastrophes. Typhoons and earthquakes in 2006 mainly effected newly industrialising countries. As a result insured values were relatively low. Furthermore a lot of property wasn’t insured at all. In a longterm comparison financial losses were quite mild and added up to $ 48bn. Only one third of these losses worldwide were covered by insurance. 2006 was also below average in terms of the cost of technical catastrophes8.

Unfortunately, company data for the reinsurance sector is missing for some companies. Because of this, the data for the combined ratio (gross) and net reinsurance premiums written were taken from Standard & Poor’s Global Reinsurance Highlights 2007 edition.

This development combined with an increase in reinsurance premiums as a result of the hurricane season in 2005 had a positive effect on European reinsurers. The following figures describe the development of net reinsurance premiums written and the combined ratio for the nine biggest European reinsurers9. Except for Swiss Re, all companies had a combined ratio (gross) below the threshold of 100%.

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Figure 13: Net reinsurance premiums written

![Net Reinsurance Premiums Written](image)

Figure 14: Gross combined ratio reinsurance sector

![Combined Ratio (%)](image)
Demand for alternative risk transfer soared in 2006. This was the result of the shortage of reinsurance and retrocession capacities for natcat-programs following 2005. According to Guy Carpenter total catastrophe bond issuance was $4.69bn in 2006, a 136 per cent rise on the previous record of $1.99bn in 2005. More than $8.48bn of bond principal was outstanding at the end of 2006, a 74 per cent increase on the $4.9bn outstanding at the end of 2005. Aon Capital Markets estimates that about $3.3bn of capital was committed to side-cars\textsuperscript{10} in 2006, a similar level to that seen in 2005\textsuperscript{11}.

There were three M&A activities in the European reinsurance sector in 2006. Revios Rückversicherung Aktiengesellschaft (Germany) was bought by SCOR Global Life S.A., Paris and changed its name into SCOR Global Life Rückversicherung AG. GE Frankona Rückversicherungs-Aktiengesellschaft (Germany) was bought by Swiss Re, Zurich and changed its name into Swiss Re Frankona Rückversicherungs-Aktiengesellschaft and Axa Re (France) was sold to investment funds, its business being transferred to a new company called ParisRe.

\textit{Development in the reinsurance market in 2007 and outlook}

Meteorologists anticipate an active Atlantic hurricane season to a high probability. The forecast spans the period from 1\textsuperscript{st} June to 30\textsuperscript{th} November 2007. Based on current and projected climate signals, Atlantic basin topical cyclone activity is forecast to be about 35\% above the 1950-2006 norm in

\textsuperscript{10} Side-cars provide additional capacity for a limited period.

\textsuperscript{11} See for all Financial Times, Florida remains a big question mark, May 1\textsuperscript{st} 2007, supplement page 2.
2007 and US landfalling tropical cyclone activity is forecast to be about 20% above-norm. There is a high (~60-70%) likelihood that activity will be in the top one-third of years historically\(^\text{12}\). At the annual meeting in Monte Carlo Swiss Re gave an estimate figure for insured losses for natural catastrophes in 2007 of about $35\text{ bn}, nearly three times as much as in 2006. Keeping in mind, that 2006 was a light year for natural catastrophes the figure is not threatening at all.

Hurricane Dean that hit Mexico twice in August 2007, however, did not cause as much damage as feared by the insurance industry. First of all the storm had weakened from category five to category one before it hit Mexico. Second, it reached its final destination just north of the city of Veracruz, a relatively unpopulated area. Combined insured losses for both Mexican landfalls are said not to exceed $400m. AIR estimates Dean to have caused insured losses of around $1,5bn in the Caribbean\(^\text{13}\). Munich Re estimates the maximum of its own share to be about EUR 100m.

In Florida the state’s Hurricane Catastrophe Fund, a state supported reinsurance entity selling reinsurance coverage at rates far below the real cost of insurance protection, was expanded in January 2007. As a consequence capital previously supporting the Florida property market – between $1.5bn and $2bn – has been freed up\(^\text{14}\). This move could put further downward pressure on rates that started to soften at the renewal on January 1\(^\text{st}\) 2007. However the reinsurance industry emphasized that prices were still adequate\(^\text{15}\). According to the market risk-adequate pricing is more important than growth over sales\(^\text{16}\).

The subprime investment crisis is not likely to have a large effect on European reinsurers because their subprime exposure is only very limited as can be seen from the following table.

\begin{table}[h]
\centering
\begin{tabular}{lcc}
\hline
Converium & 0.0\% \\
Hannover Re & 0.3\% \\
Munich Re & 0.3\% \\
SCOR & 0.4\% \\
Swiss Re & 0.3\% \\
Converium & 0.0\% \\
\hline
\end{tabular}
\caption{Subprime exposure as % total investments\(^\text{17}\):}
\end{table}

\(^*\)Converium and Hannover Re figures include residential mortgage backed sub-prime securities only

Still, there might be an indirect influence of the crisis on the reinsurance market. Side-cars that attracted a lot of money from hedge-funds in the past...
do not get it so easily any more. Therefore the demand for traditional reinsurance covers may increase again.

Reinsurance companies continued to use alternative risk products to transfer risks to the capital market. Swiss Re issued a catastrophe bond linked to Mediterranean earthquake, Munich Re securitised US windstorm risks and Hannover Re obtained protection for its worldwide catastrophe book. In addition Hannover Re also securitised a EUR 1bn portfolio of reinsurance recoverables.

Application of the Solvency II regime will likely increase the demand for reinsurance coverage. At present non-proportional covers can only partially be recognised for solvency purposes. Under the Solvency II regime these covers as well as other risk mitigation instruments will be taken into account to calculate the company’s net individual risk capital.

4. Developments in the European pension fund market

Scope of the pension fund sector analysis

In September 2005, the IORP Directive entered into force. The directive provides provisions for the activities and supervision of institutions offering occupational pension schemes. Marking a first step towards a European internal market for occupational pension schemes, the directive enables pension funds established in one member state to operate pension schemes of employers in other member states. The directive focuses on all pension products offered by pension funds as well as by life insurers. The directive has stimulated the creation of IORPs in some of the new Member States where up to recently no occupational pension funds existed.

In this section, the term "pension funds" refers only to Institutions for Occupational Retirement Provision (IORPs) that fall under the scope of Directive 2003/41/EC on the activities and supervision of institutions for occupational retirement provision. This means that e.g. book reserve systems are not covered by the report because they do not fall under the scope of the IORP Directive.

Accumulated wealth of the occupational pension funds sector

The total size of assets as a % of GDP gives a good indication of the relative wealth accumulated by the pension fund sector (see Figure 16). The size of pension funds is to a large extent related to their maturity and labour market coverage. Where traditional public sector pensions, other similar national arrangements and group life insurance contracts play a dominant role in the retirement system, the size of the occupational pension fund sector is relatively small. This is especially the case for continental European countries. The differences in maturity and labour market coverage of the pension fund sector across Europe is also evidenced by the difference in the volume of

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19 Directive 2003/41/EC on the activities and supervision of institutions for occupational retirement provision.
assets held per pension fund member (both active and retired members; see Figure 17).

**Figure 16: Relative size of pension fund sector: Total assets as % of GDP**

![Relative size of pension fund sector: Total assets as % of GDP](image)

*Source: EuroStat*

**Figure 17: Assets per pension member (active and retired)**

![Assets per pension member (active and retired)](image)

*Source: EuroStat*

In general, Central and Eastern European countries that have started from a relatively small asset base are experiencing strong growth in net additions to the pension fund (see Figure 18). This growth is often accelerated by fiscal incentives: tax deductibility of employer contributions, tax relief on investment income and/or benefits paid to employees, as well as an exemption from social security tax on employee contributions. However, the labour market coverage often remains low due to the limited financial education and awareness of the benefits of pension plans or due to the high cost of servicing such pension plans.
Figure 18: Net technical additions* in % of Total Assets

* Net technical additions = total net contributions - total net benefits + net transfers to/from other funds + change in technical provisions.
Source: EuroStat

Figure 19: Life insurance sector: gross written pension premiums*

* Pension arrangements of non-linked and linked life assurance and group pension assurance.
As mentioned, in many countries a large part of the pension schemes is offered by life insurance companies. Figure 19 and 20 compares the gross written premiums received by the life sector\textsuperscript{20} and the pension sector in the various countries. Figure 21 and 22 provides some comparison for technical provisions. Some countries are experiencing a significant amount of transfers of pension obligations into life insurance companies in the form of group life contracts.

\textit{Figure 20: Pension sector: gross written premiums*}

\textit{Figure 21: Life insurance sector: gross technical provisions for pensions*}

\textsuperscript{20}Partly consisting of Pillar III pension schemes.
Future trends

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 now geared towards the economic implications of increasing life expectancy and towards promoting retirement provisions through Pillar II and Pillar III 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 (PAYG) social security systems. It is expected that, by supplementing PAYG state pensions with funded private pensions, the cost and risks of an ageing population remain manageable.

These pension reform efforts have also resulted in a trend of DB schemes gradually being phased out in a number of countries. This would mean that substantial increases in contributions into new defined contribution plans (DC) can be expected in future.
This trend will help reduce the vulnerability of the pension fund sector as a whole to funding risk, as a growing part of the investment risk will be transferred to the household sector. This could be especially beneficial to those countries that currently still largely operate DB plans. The possibility that the reduction of DB schemes might entail a reduction of (future) pension benefits may have resulted in more focus on private pension plans (pillar III) in some countries. Other countries have accumulated largely or exclusively DC plans. On average (both in terms of gross contributions and number of members by type of plan, see Figure 23 and 24), the retirement landscape in Europe is largely organised by DB plans.
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 developments in pension premium and benefits as well as on asset performance. The recovery of financial markets in 2005 and 2006 has generated positive returns on assets (based on net investment income; see Figure 25) in most reporting countries. However, differences in rates of return and development in return rates between countries are substantial.

A large number of countries continue to consistently capitalize substantial amounts into their funds. Based on net investment income only, all countries have benefited from strong returns.

Figure 25: 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 (see Figure 26). Countries that report results for 2006 and 2007 point to an improvement in financial strength, as the number of IORPs that didn’t fulfil its solvency requirements diminished, based on the steady increase of long term interest rates as well as developments on the stock markets. It should be noted however, that the actuarial bases for calculating minimum technical provisions differ between jurisdictions (e.g. ABO21 method, PBO22 method, the use of technical interest rate or term structure, or other methods) which in turn means that cross-country comparisons are not very meaningful. In addition, in some countries the increase in the average cover ratio is, at least partly, the result of recent

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21 Accumulated Benefit Obligations (ABO) refers to a method for calculating the present value of future pension obligations towards employees on the basis of actual salaries, inflation and mortality rates.

22 Projected Benefit Obligations (PBO) refers to method for calculating the present value of future pension obligations towards employees on the basis of prospective assumptions about future salaries, inflation and mortality rates.
It can be expected that pension funds might consider diversifying away from equities, as a market downturn such as the one seen in 2000 can quickly lead to a sharp 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.

In a number of countries pension funds are also exposed to interest rate risk on their fixed income holdings, especially in defined benefit plans. In the case of defined contribution plans, some countries require pension funds to guarantee a minimum return on employer contributions and on employee contributions, so that the sponsoring entity is exposed to the investment risk as well.
### Annex 1: Country abbreviations

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<th>Country Code</th>
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Annex 2: Scope of CEIOPS’ pension fund data

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\(^{23}\). The 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, including the occupational pension funds sector.

The coverage of the business statistics on pension schemes is generally limited to Pillar II 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 or trusts, non-autonomous pension funds (or book reserve mechanisms) or group life insurance contracts, depending on institutional and traditional differences between countries.

Autonomous pension funds or trusts 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 I compulsory social security schemes and Pillar III 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.

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.

Finland:
Statistics do not include Finnish statutory pension schemes operated by individual companies/foundations/funds. Statistics only relate to occupational pension funds by Directive 2003/41/EC.

Germany:
The pension funds statistics relate to institutions for occupational retirement provision that fall under the scope of the IORP Directive, i.e. Pensionskassen and Pensionsfonds. Beside these two types of implementing occupational pensions there exist three further types, namely Direktzusage (book reserves), Unterstützungskassen (support funds) and Direktversicherung (direct insurance) that do not fall under the scope of the IORP Directive and are therefore not considered.

Italy:
Data covers 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. The data does not include book reserve schemes.

Luxemburg:
The Commission de Surveillance du Secteur Financier is the competent authority for pension funds governed by the law of 13 July 2005 relating to institutions for occupational retirement provision in the form of pension savings companies with variable capital (SEPCAVs) and pension savings associations (ASSEPs).

Netherlands:
Pension fund statistics relate to all Pillar II 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:
1. occupational pension fund
2. agreements with life insurance companies
3. agreements with investment fund companies
4. 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 telecommunications sectors established through collective agreements. No figures regarding technical provisions are provided due to the distinctive legal framework under which Portuguese pension funds operate.

Slovakia:
No data was reported for 2003 until 2005 as recent pension system reforms have introduced mandatory funded occupational pensions only 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.
Statistical Annex (SA) (see separate annexes)

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