Financial Stability Report 2009
Second half-yearly report
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Introduction

CEIOPS’ Financial Stability Committee (FSC) has prepared its second half-yearly report on the financial conditions and financial stability of the insurance and occupational pension fund sector in the EU/EEA. The current report covers developments in the insurance, reinsurance and occupational pension fund markets for the periods 2007 and 2008, including observations and outlook for 2009 and beyond.

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1. Summary of main issues and conclusions

CEIOPS considers that the risks described in CEIOPS Spring Report 2009 have not significantly changed during the second half of 2009. Though the insurance and occupational pension funds sector had a favourable financial position by mid-2008 the financial situation has weakened in the second half of 2008 and 2009. There still is uncertainty on the future outlook for the insurance and occupational pensions sector related to developments in interest rates, equity prices as well as the influenza A(H1N1).

Insurance sector

In 2008 the financial market turmoil has reduced demand of life products significantly, and recessionary pressure on household income will likely reduce demand further throughout 2009.

In 2008 the financial performance of most insurance undertakings was weaker than in 2007 due to low investment yields and flat or decreased premium income. Year 2009 is especially challenging due to a prolonged period of deteriorating macroeconomic environment.

During 2008 solvency positions have deteriorated and many undertakings have as a response increased their capital buffers by now.

Driven by high claims from weather-related natural catastrophes, 2008 was the second most expensive year on record. In 2008, the course of the softening global reinsurance market continued. Due to the financial turmoil the demand for reinsurance capacities is increasing. Lower or even negative investment results have placed pressure on primary insurance undertakings’ capital. In the European renewal season 2009 the prices increased in certain reinsurance segments.

The insurance industry as a whole faces several risks and challenges going forward, of which the most prevalent are financial risks, in particular the risk of low or even again decreasing interest rates as well as risks related to depressed equity markets. A prolonged period of economic recession will be particularly challenging for the underwriting performance.

The monoline sector remains under significant stress and the deterioration in structured credit markets and, in particular, in securities related to US subprime mortgages, has continued. Capital levels have increased as business runs off the books, with little or no new business being written.

Pension Funds sector

The financial turmoil has hit Institutions for Occupational Retirement Provisions (IORPs) primarily in their role as institutional investors. Sharp drops in the equity markets and increasing credit spreads have put their investment portfolios under strain. However, the impact has not been as severe as seen in other financial sectors as the long term nature of the liabilities affords some protection in this respect and IORPs have not experienced the liquidity problems seen elsewhere. Policy responses from supervisors in light of the downturn have focused on the flexibilities within the current framework and the differing security mechanisms available.

The defined benefit (DB) occupational pension fund sector is coming under increased pressure, also because of low interest rates and prevailing longevity risk. The crisis has also been challenging for defined contribution (DC) plans, making evident that a careful plan design such as suitable default options and lifecycle mechanisms, are important elements in mitigating the effect of market downturns on plan members. In many Member States, financial education and awareness is increasingly felt crucial, in order to empower people to make sensible and informed choices regarding their pension provisions.
2. Recent financial market developments

An improvement in financial indicators is visible since finalisation of the Spring report in June 2009. Also, some economic indicators show moderately positive signs although the outlook for economic recovery remains uncertain. In response to recessionary pressure, the Eurosystem and other major central banks from around the world have lowered their official rates on an unprecedented scale. Since October 2008, the ECB has reduced the main policy rate by more than 400 basis points. Currently the 3 month Euribor rate is below 1 percent and remains relatively stable since a few months. Long-term government bond yields dropped in parallel with these developments but moved more or less horizontally since the beginning of this year. In recent months the yield on the 10-year European benchmark bond has stabilised somewhat, and remains within the 3.25-3.75 range (see Figure 1). A sustained period of low interest rate environment is especially challenging for life insurers and pension funds.

![Figure 1: European short- and long-term interest rates](image)

The ongoing financial and economic crisis has led to a steep fall in global share prices (see Figure 2). Especially between September and November 2008 stock prices across the world went into a free-fall. This trend reversed after the stock markets’ low point in March 2009. Recent months showed a further pick up in stock prices. In October 2009 year-high stock price levels were reached, although still well below the levels seen in 2007. Pension funds and insurance companies are benefitting from these developments through asset price revaluations.

Because of the turmoil in the financial markets, share price indices of life and non-life insurers fell behind the European wide share index (see Figure 3). Life insurers recorded the worst equity performance in the first quarter of 2009, falling well below the DJ Euro Stoxx index. Since mid 2007, European life insurers have lost more than 70 percent of their market value. This large loss could be related to life insurers’ above average sensitivity to stock market developments, as a result of their sizeable equity investment portfolios. Another possible...
explanation is that the life insurance business is more cyclical in nature compared to other insurance segments. While European reinsurers have also taken a hit, their stock prices have generally outperformed broad indices like the DJ Euro Stoxx index. This is due to increased premiums in several reinsurance segments and a conservative investment strategy favouring secure government bonds instead of equity investments (for more details see Section 5). With the rebound of stock prices in recent months, European insurers have regained a sizeable part of their original market capitalisation of beginning 2007.

Figure 2: European and world equity indices

![Figure 2](image)

Figure 3: EU stock market indices

![Figure 3](image)
The financial strength ratings of European insurers have been subject to more downgrades than upgrades in 2008 and the first months of 2009 (see Figure 4). Also the number of insurers with a negative rating outlook has increased since 2008, while the number of firms with a stable outlook has decreased (see Figure 5). Since the publication of the June 2009 Spring report somewhat more positive developments can be noticed. However, there is still a lot of uncertainty in the market surrounding the condition of financial companies.

Figure 4: Development of leading European insurance group’s financial strength: Credit ratings distribution (Year-end)

Figure 5: Development of European insurance ratings outlook distribution
As more and more financial institutions published substantial losses over the fourth-quarter of 2008, including AIG which posted record-losses of US$61.7 billion, concerns about the health of the global financial system once more increased. The sharp widening of Credit Default Swaps spreads for European insurance groups towards the end of February 2009 reflected this fear. From March onwards credit spreads have come down substantially in light of the more favourable developments for the sample of large European insurance groups in recent months (see Figures 6a and 6b).  

Figure 6a: Development of 5YRS CDS spreads European Insurance groups

Figure 6b: Development of 5YRS CDS spreads European Insurance groups

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1 CDS spreads are averages of price quotes from leading CDS market makers. As with all OTC derivatives, these spreads can be driven by illiquidity.

2 CDS spreads are from Credit Market Analysis, obtained through Thomson Financial Datastream.
That being so, Figure 6c below illustrates that insurers and pension funds have been likely to suffer losses in 2009 on their fixed income investments due to materialising corporate defaults as forecasted and higher bond spreads. However, since the first quarter of 2009 bond spreads have decreased significantly and corporate default forecast for 2010 appears more optimistic, compared to 2009. These developments are not specific to the insurance sector but are also related to other financial sectors.

Figure 6c: Default rates, default rate forecasts and bond spreads of European speculative-grade-rated corporations.

Source: Moody’s and JPMorgan Chase & Co.

Note: The bond spread is the spread between the yield to maturity of the euro area high-yield index (BB+ rating or below, average maturity 5.9 years) and the euro area five-year government bond yield.
3. **Update on Influenza A(H1N1) - "Swine Flu"

The major outbreak of influenza A(H1N1) – also dubbed as swine flu – in late April 2009 in Mexico very quickly evolved into a global pandemic. Until early July, nearly 100,000 infections in more than 130 countries and territories and more than 400 fatalities have been reported. The WHO had raised the Pandemic Alert Level to Phase 6, its highest level, on June 11th 2009.

In early November no up-to-date figure on reported infections is available since the WHO ceased the requirement for national authorities to test and report infections in early July. However, the number of reported deaths exceeded 7,000 in early November (in more than 100 countries), of which some 400 occurred in Europe.

Based on worldwide figures, death rates are probably a bit higher than for a seasonal influenza. However, death rates are higher in less developed countries while in industrialised countries medical treatment contributes to mostly mild courses of the disease. The impact on medical services in nearly all European countries is considered to be low according to the WHO surveys.3

Some uncertainties remain:

- Infection rates in the Northern Hemisphere are rapidly increasing since October 2009, thereby putting forward the start of the annual influenza season by a couple of weeks4 (in the Southern Hemisphere some countries might already have reached the peak of infections according to the WHO).5

- While for now only few cases of resistance to influenza vaccines are known, a mass vaccination with newly developed drugs which has started only recently in many countries bears some risks in itself.

- Influenza viruses have a tendency to mutate although for the moment only little genetic variation and no indication of re-assortment with other viruses has been observed.6

- In contrast to most seasonal influenza strains A(H1N1) is affecting mainly younger people while infection among the old is less widespread. Such a pattern could have an impact on the macroeconomic consequences of the pandemic (e.g. parents staying at home in order to care for their children).

All in all, as it currently looks, this influenza strain might probably turn out to be a minor event for the European insurance sector, mainly due to low mortality rates in the industrialised world among otherwise healthy people. In comparison, seasonal influenza causes between 250,000 and 500,000 deaths each year, pandemics like the Asian Flu (1957-58) and the Hong Kong Flu (1968-69) resulted in 1-2 million deaths each.

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3 [http://gamapserver.who.int/h1n1/impact-health/h1n1_impact-health.html](http://gamapserver.who.int/h1n1/impact-health/h1n1_impact-health.html).
A global pandemic could affect insurance undertakings via two transmission channels, both on the liabilities and the asset sides. Underwriting risks could be relevant not only for life and health insurance undertakings, but also for non-life insurance undertakings:

- **Life insurance**: Actuarial models estimating the effects of a pandemic on life insurance business mostly rely on extrapolations of previous pandemics. However, assumptions regarding medical advances as well as the increased speed of infection in a globalised world lead to widely differing results. It should also be noted that mortality rates among the insured population are generally lower than amongst the whole population.\(^7\) QIS4 used a 10 percent increase in mortality rates to model a 1-in-200-years event.

- **Health insurance**: Claims will rise during a pandemic, though caps exist which need to be taken into account when modelling the risks (e.g. hospital capacities might be constrained, so costs tend to grow slower beyond a certain infection threshold).

- **Non-life insurance**: Lines of business most affected by global pandemic would include business interruption and (in case of a macroeconomic impact) credit insurance.

Asset-side risks can be distinguished between short-term and long-term effects:

- **At the outbreak of a new pandemic**, stock markets tend to decline sharply due to fears by investors. Evidence from South Eastern Asia shows that declines in national stock prices (relative to the MSCI World) accumulated to about 5-10 percent within six weeks after the major outbreak of SARS in March/April 2003.

- **Long-term effects on stock markets** will usually only occur if economic growth slows down as an effect of the crisis. Shares from the travel & leisure sector will usually be more affected.

- **Credit risks** are also expected to rise if the pandemic turns out to have a long-lasting effect on the real economy.

### Potential effects of a pandemic on the real economy

Epidemics of the last decade had only minor impacts on economic growth; also the effects were limited to relatively short time spans of a few months and to a few countries (South East Asia in case of Avian Flu and SARS).

Tabel 1a: Estimations of the economic impact of a severe pandemic vary widely:

<table>
<thead>
<tr>
<th>Source</th>
<th>Scenario</th>
<th>Economic effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMF</td>
<td>Infection rate: 25 percent worldwide (~1.7 bn people)</td>
<td>Global GDP -2%</td>
</tr>
<tr>
<td></td>
<td>Death rate: 2.5 percent of infected persons (~42 mill people)</td>
<td></td>
</tr>
<tr>
<td>Lowy Institute/ Brookings</td>
<td>Extreme scenario: 142 mill deaths worldwide (~2 percent of world population)</td>
<td>Global GDP -10.7%</td>
</tr>
<tr>
<td></td>
<td>Mild scenario: 1.4 mill deaths worldwide</td>
<td>Global GDP -0.8%</td>
</tr>
<tr>
<td>Oxford Economic Forecasting</td>
<td>Extreme scenario comparable with Spanish Flu</td>
<td>Global GDP -5%</td>
</tr>
<tr>
<td></td>
<td>Mild scenario: SARS extended to six months</td>
<td>Global GDP -1%</td>
</tr>
</tbody>
</table>

A severe pandemic might postpone recovery and prolong the recession.

Preparedness is key!

The current outbreak of influenza shows vividly that the risk of a severe pandemic does exist and requires constant updating not only of emergency plans by public authorities but also of risk models used by insurance undertakings. Solvency II will codify the need to include biometric risks in the determination of the solvency capital requirement. That is why insurance undertakings should amplify their efforts to model and manage risks of a global pandemic.

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The following analysis of developments in the European insurance sector in 2008 is based on the reporting of key figures and on the qualitative reports provided by CEIOPS Members in autumn 2009. In the qualitative part of the report also developments in the first half of the year 2009 were given. Not all Member States provided a response and the reporting Member States may be different or the reporting basis may have changed from previous years. In those parts the analysis is incomplete.

Market Trends

The ratio of gross premiums to gross domestic product, an indicator of insurance penetration is of a very different size across Member States showing only gradual change over time in total. For example, in IE where the penetration ratio is one of the highest, about 32 percent in total, the share of life insurance has declined but non-life has been increasing compared to the GDP. In the non-life business penetration is highest in NL (due to the privatisation of health insurance in 2006).

Figure 7: Insurance penetration: Gross Written Premiums in percentage of GDP (2008)

Source: CEIOPS

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9 Due to the adoption in 2008 of a new accounting regime in Portugal, on an IAS/IFRS-consistent basis, the reporting of information to the Supervisory Authority has been changed accordingly, with significant impacts on several variables. Therefore, any comparison with previously reported information (namely regarding previous Financial Stability Reports) must be performed taking the impacts of such change into consideration. The most visible impact is the fact that a large part of life business is now classified as investment contracts instead of insurance contracts (and therefore this part of the business is not included in CEIOPS’ analysis under “insurance premiums” and “technical provisions”). Amounts received related to investment contracts amounted to EUR 6.637 mn in 2008, and liabilities related to investment contracts represented EUR 20.415 mn, classified as financial liabilities.
Total insurance activity, calculated as the number of national enterprises and branches of non-EU/EEA and of EU/EEA countries, have increased considerably in FR, especially the number of composites. This was due to the inclusion of a large number of mutual undertakings under the scope of supervision as of 2008. There has been a slight increase also in IE and the UK, in other Member States the number has remained at the same level for several years. The total number of national enterprises and branches increased from 4,354 in 2007 to 5,094 in 2008 across Member States.

Figure 8: Total activity per Member State

The average amount of assets per enterprise and branches seem to differ a great deal between Member States, UK and DE showing the biggest numbers in total. Looking at the life-insurance activity, the average sizes of companies and branches seem to be biggest in AT, DE, FR, IT, NL and UK.

Source: CEIOPS
Although a large number of companies have asked for authorisations to enter foreign markets through freedom of services, the actual market share of these activities abroad is almost negligible. Most of international business is done through subsidiaries and branches. Figure 10 shows the numbers of national enterprises, branches of third countries and branches of EU/EEA countries. DK, and FI have no branches, IS has two and PL only one. The share of EU/EEA branches (number of branches/total number of enterprises) is biggest in BE, DE, ES, IT. The latest trend in Baltic insurance markets is to establish European companies (Societas Europaea). Since 2007, two life insurance companies write business on the Estonian insurance market as European companies (with head office in Estonia and branches in Latvia and Lithuania). In 2009 one non-life undertaking received permission to merge with cross border companies from the same insurance group. In July 2009 a life undertaking in Estonia has applied for a permission to establish a branch in Lithuania and to form a European company with its head office in Estonia and branches in Latvia and Lithuania. Another European insurance group is also planning to merge its Baltic subsidiaries (life insurers) to a European company with its head office in Lithuania and branches in Latvia and Estonia. Very few Member States have a significant number of branches of third countries.
Figure 10: Number of insurance enterprises in 2008

The share of these foreign branches measured in terms of gross premiums written is more than 10 percent only in CY, LI, MT and NO (see Figure 11). In NO a large undertaking became a branch of its Danish parent undertaking. The average share in the reporting Member States was 7.05 percent. The share has increased in LT and LV because the subsidiary companies of two Estonian life insurers became branches. The changes in other Member States in 2008 were only moderate.
Some Member States reported on decreased concentration (measured by gross written premiums of the largest 3 and 5 companies as a % of total gross written premiums in the domestic sector) in 2008, although the situation was stable in most Member States. Some high profile transactions were reported, for example in UK Swiss Re’s acquisition of Barclays Life (a run-off life insurer) and Resolution’s offer to purchase Friend’s Provident in August 2009. Especially some eastern European Member States report that there is a tendency to a further drop in the number of enterprises as they continue to search for possibilities of engaging into more effective activities - to reorganise and to operate as branches of insurance undertakings of other EU Member States, and enter into the market as insurance undertakings of other EU Member States. Concentration is higher in the life business than in the non-life business.

The life segment is a relatively concentrated market in CY, EE, IS, LV, MT, NO and SK whereas in the non-life business the concentration ratio is highest in EE, FI, LI, LU, IS and SK. In the bigger Member States DE, ES, FR, IT, UK as well as NL the sector is most fragmented. Figures 12 and 13 illustrate the degree of concentration across Member States for life and non-life enterprises (excluding business of composites).
**Development in premiums and claims**

On average the positive EU gross written premium growth in 2007 turned into a slight drop in 2008. The total amount of premiums declined by 0.8 percent. This was due to weak performance in the life-sector where the drop was 11.5 percent on average (see Figure 14a). However, Europe still accounts for 41 percent of worldwide premiums written in 2008 (see Figure 14b).
Figure 14a: Growth in gross premiums written (percentage change compared to previous year)

Source: Swiss Re/Sigma (on EUR basis)

Figure 14b: World Market shares in gross premiums written for 2008

Source: Swiss Re/Sigma

Half of the reporting Member States still showed an increase in 2008 in the total gross premiums written in local currency. The financial crises hit most on the life insurance business as could be expected. The growth in non-life was over 8 percent in total (see Figure 14c).
In the life sector developments in the national markets were non-uniform. Some Member States, especially in the eastern part of Europe, like BG and PL, still experienced high growth of premiums written during 2008. More than half of the Member States reported on premium decline in 2008, the decline was especially sharp in some of the Baltic countries, as well as for the life activity in BE and the UK.

In total competition and market conditions for the life business were challenging in 2008. During the last quarter of 2008 the financial crisis had a strong negative influence on demand and sales of unit-linked products. The weighted average growth in premiums calculated in local currency was slightly below zero, -0.8 percent. Many Member States report a continuous decline also in the first half of 2009.

The non-life sector emerged better from the year 2008 than the life sector. In total the premium growth continued in 2008 in most Member States, with a weighted average growth of 7.5 percent. Premium increase was highest in BG, PL and SE. In PL the increase was about 12.9 percent, the highest since 2000. However, the increase has dropped during the first half in 2009 to 5.33 percent. The total gross premium income for SE increased by 5 percent from 2007 to 2008, and the income between July 2008 – June 2009 is 1 percent higher than for 2008. The main drivers for this development are direct insurance outside SE (mainly in NO) and written reinsurance, which is excluded from the growth. BE, IS and MT reported on a quite sharp premium fall in 2008.
Profitability in 2008

Combined ratio

As to the technical result of the non-life business two third of the Member States where information was available reported higher combined ratios (defined as claims and operating expenses divided by premiums, net of reinsurance) than in 2007. In DE, GR, IE, IS the increase was strongest. In IS due to the financial and economic turmoil the number of claims in motor insurance has reduced but the cost of individual claims has increased. There have been premium increases due to the general inflation. DE reported that claims originating from credit insurance are expected to rise in 2009. In 2008, expenses already rose significantly. In five Member States claims and expenses together were higher than premiums.

In contrast some Member States reported strong improvements in the combined ratio, like LU, LV and SE. In LV the decline in claims paid was due to a fall in inflation rate. In SE all the main lines of business have been profitable for some years. In the commercial lines there have been fairly few catastrophic related claims (mass fires), and the claims frequency has been decreasing in motor insurance, most importantly for bodily injury in Motor Third Party Liability and theft.

Lapses and surrenders

When national economies face financial difficulties there tends to be an increase in the amount of lapses and surrenders in life insurance. Nevertheless, there are differences between Member States. Some, like EE, LV, PT and SK reported significantly higher lapse rates compared to previous years. AT reported that a similar development had been seen during the first half of 2009. Some Member States reported that on surrendering, there has not been any increase in the proportion of

Figure 15a: Net Combined Ratio*

* Defined as claims and operating expenses divided by premiums, net of reinsurance. Total refers to unweighted average, based on sum of claims and operating expenses and sum of premiums for 2008 across countries. Data excludes composite insurance undertakings.

Source: CEIOPS
lapses. But on the other hand the increase in premiums has declined significantly to only 1 percent compared to the year before.

The weighted average return on equity (defined as profit or loss divided by total of capital and reserves) in 2008 in the life sector was -15 percent (14.4 percent in 2007). The corresponding figure in the non-life sector was 4.2 percent (16.6 percent in 2007) and for composite undertakings 3.4 percent (26.0 percent in 2007).

Figure 15b: Return on equity 2008 *

![Return on equity 2008 chart](image)

* Defined as profit or loss divided by total of capital and reserves. Total refers to unweighted average, based on sum of profit or loss and sum of capital and reserves for 2008 across countries.
Source: CEIOPS

Strong negative developments on stock markets, high volatility on interest rates and credit spread widening meant a substantial decline in investment income for insurance undertakings. Especially the results of the life insurance business are highly dependent on the yield of the investment portfolio. As a consequence the return on assets (defined as profit or loss divided by total assets) dropped substantially in 2008. For the first time in a number of years, many insurance undertakings reported losses. The average return on assets in the life sector was –1.51 percent, ranging from +12.0 to –15.8 percent. IS, MT and PL showed the highest returns whereas FI, EE and SE had the highest losses.

In the non-life business returns on assets were slightly more positive, with an average of +0.85 percent. 19 Member States showing positive returns and 11 negative returns, the range of returns were from –43.85 percent in IS to +9.77 percent in EE.
Financial Strength

Because of the financial crisis the solvency surplus (available solvency margin - required margin based on Solvency I measures) became thinner in 2008 especially in the life business.

As a result of the crisis, undertakings have increased their capital and some have received capital injections from governments or other capital providers to keep the solvency ratio at adequate levels. Some institutions have also been able to issue state-guaranteed bonds. Some relaxations of the application of accounting rules have been allowed by certain supervisors: in many Member States accounting rules allow insurance undertakings to value financial instruments above market values if declines in market values can be regarded as merely temporary. In valuation of illiquid instruments several insurance undertakings have chosen to pursue a model based approach (mark-to-model accounting). Undertakings have also restructured their investment portfolios and exposures have been hedged by derivatives. One should note that these measures obviously reduce the comparability of data across Member States.

Available solvency margins decreased during the year 2008. At year end 2008 the total solvency surplus (available margin – required margin) was EUR 352bn compared to EUR 554bn a year before.

In the life sector the aggregate solvency ratio also decreased last year, reaching a level of 253 percent at the end of 2008 (compared to 362

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*Defined as profit or loss divided by total assets. Total refers to unweighted average, based on sum of profit or loss and sum of assets for 2008 across countries.

Source: CEIOPS

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percent at the end of 2007). In the life business the solvency ratio was especially high in BG and SE. Despite the decline, the ratio was more than 200 percent in most Member States.

In the non-life sector the corresponding figure was 299 percent (333 percent at end 2007). The solvency ratio was more than 600 percent in three reporting Member States and less than 200 percent in eight other Member States.

Figure 17: Solvency ratios 2008*

*Defined as available solvency margin divided by required solvency margin. Total refers to unweighted average, based on sum of available solvency margin and sum of required solvency margin for 2008 across countries.

Several Member States reported on one or few undertakings whose solvency ratio fell below the minimum required level during 2008. Those undertakings either received new capital from investors, subscribed for subordinated loans or were merged. Also government aid in the form of direct aid and government facilitated bonds was used. HU, IS and LT reported on one or two undertakings being insolvent. All in all, the number of needed emergency actions by the undertakings in 2008 remained low.

**Investments**

Most of those Member States that showed the biggest growth in premiums succeeded also in increasing their asset base (BG, LI, LV, SK). But generally insurance undertakings had to report reductions in assets, for the first time in a number of years. The amount of asset values fell most in EE, FI, and in the UK there was a significant decrease. Total weighted average decrease of assets in the reporting Member States was 3.6 percent.

Despite the turmoil in financial markets and equity markets in particular, at the end of 2008 the share of equities and units in unit trusts was more than 25 percent in eight Member States (in the year end 2007 in nine Member States). In the total assets equities and participations accounted for 26 percent of all assets. The highest share
of equities and participations are in the Scandinavian Member States, AT and UK. Figure 18 shows that the variation of allocations between Member States is still substantial.

Figure 18: Asset allocation* for 2008

* 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” covers shares and other variable-yield securities, participating interests, investments in affiliated enterprises and participations in investment pools. Data also includes composite insurance undertakings, but excludes reinsurance undertakings.

Source: CEIOPS

Developments in 2009 and outlook

Financial risks in general, equity risk and interest rate risk in particular, have materialised during the reporting year and have already deteriorated insurance undertakings’ returns and solvency positions. A deep recession of the real economy - GDP growth is negative in 2009 in the EU-area - is a major challenge affecting all business opportunities and environments. Some other Member States have faced continuous economic downturn affecting also the insurance market. For example in LV the rate of decline of the insurance market (-20.1 percent for the first half of 2009) was more rapid than the drop in GDP (-18 percent).

In general, volumes in the non-life business will be flat or they will decrease over the coming period. Claims can remain stable, meaning that combined ratios could still stay at acceptable levels, although some Member States report on the risk of claims inflation. While operating expenses have been increasing in 2008, these are now expected to be adjusted downwards according to decreasing volumes.

One Member State reported that claims relating to the financial crisis have started to be reported. However, it may take a number of years before the full extent of the impact, which may be substantial, becomes clear. Firms’ responses to these conditions may also give rise to a number of other risks, including relaxing underwriting controls, under-reserving to boost the financial position, and measures affecting operational effectiveness by taking actions to cut costs.
In challenging economic conditions it is more important for firms to maintain effective risk management, particularly on underwriting policy. Failure to carry out disciplined underwriting performance could lead to losses and deplete capital. A likely fall in demand for products in the recessionary environment could increase the competitive pressure on insurers and affect underwriting discipline further.

In the life sector the financial crisis reduced demand significantly already last year. No fast turn can be seen. The positive element for life insurance undertakings is that the yields of competing products have deteriorated, too.

Solvency positions of insurance undertakings have already deteriorated and some undertakings have received new capital. However, there has not to date been a widespread need to access the capital markets. It seems that most insurance undertakings’ solvency margins still include shock absorption capacity helping them to survive over the recession period.

Insurance undertakings that are part of financial conglomerates can meet particular risks in the current environment: ownership links and contagion risks from banking activities can affect these insurance undertakings more negatively. Rapid and steep changes in currency exchange rates could have a substantial impact on balance sheets of international groups and insurers with overseas exposures.

Maximum guaranteed interest rates attributed to life insurance policies vary from one Member State to another. Products with the highest guaranteed interest rates were mainly sold at least several years ago but they include long term commitments. Although maximum guaranteed interest rates are usually set with a high level of safety margins, they are often fixed throughout the lifetime of the contract in several Member States. This means that, for contracts that were initiated during a period of high interest rates (so that maximum interest rates also tended to be higher), the interest rate used to discount the technical provision in the balance sheet may exceed the present low level of market interest rates. This puts additional strain on the solvency position of the insurance undertakings holding such contracts since the gap between the interest rate used to discount the technical provisions and the current risk free rate would need to be financed by investment yields in excess of the risk free rate.

A recessionary period can have an impact on lapse/surrender in life business as consumers in an urgent need to recover funds may decide to exit the contract despite possible penalties or other disincentives. Understandably, the volume of new production would at the same time be low. The combination of these two factors would increase undertakings’ liquidity risk. Some Member States have seen slight increases in lapse rates but the risk has not materialised to a significant extent in any Member State so far.

**Update on monolines**

Financial guarantee insurers (or monolines) are firms that provide credit insurance to lenders or bondholders. There are still nine monoline insurers, seven of which have subsidiary operations in the UK, and one of which is operating in France. The monoline sector
remains under significant stress and the deterioration in structured credit markets and, in particular, in securities related to US subprime mortgages, has continued. Consequently, most financial strength ratings were downgraded further in the last six months by the main three rating agencies who rate financial securities, Moody’s, Standard & Poor’s, and Fitch.

Of the original monolines, only Assured Guaranty and Financial Security Assurance (FSA) still retain an AAA rating from at least one agency (Standard & Poor's) which much of the market requires to write bond insurance. However, both companies were assigned a negative outlook to their triple A rating following the acquisition of FSA by Assured Guaranty. On the other hand, Moody’s downgraded Assured to Aa3, but affirmed FSA’s rating at Aa3. Assured remained under review for a possible downgrade whereas FSA was removed from under review and assigned a negative outlook. The rating agency, Fitch, downgraded Assured to AA- and FSA to AA and assigned a negative outlook.

For all the other monolines, there is still downward pressure on their financial strength and a number of firms have withdrawn their ratings. Syncora’s S&P rating was moved to ‘R’ following the order by the New York regulator to suspend all claims payments until further notice. Syncora has since managed to restore a small surplus position. With the exception of Assured and FSA, all monolines are in the process of running off their existing portfolio, either through normal run-off or through commutations with counterparties. FSA has limited its new business writings to public finance insurance, whereas Assured is still considering structured credit transactions.

| Table 1b: Ratings of Monoline Insurance undertakings as at 2.12.2009 |
|-----------------|-----------------|-----------------|
|                 | S&P             | Moody's         | Fitch            |
| Ambac           | CC              | Caa2            | Rating withdrawn |
|                 | developing outlook | developing outlook |                 |
| FGIC            | Withdrawn       | Withdrawn       | Rating withdrawn |
| MBIA            | BBB             | B3              | Rating withdrawn |
|                 | negative outlook | Negative        |                 |
| Syncora [previously SCA] | R              | Ca              | Rating withdrawn |
|                 | Outlook developing |                |                 |
| CIFG            | CC              | Ba3             | Rating withdrawn |
|                 | negative outlook | developing outlook |                 |
| Radian          | BBB-            | Ba1             | Rating Withdrawn |
|                 | Creditwatch negative | Developing outlook |                 |
| ACA             | Withdrawn       |                 |                 |
| Assured         | AAA             | Aa3             | AA-              |
|                 | negative outlook | Under review possible downgrade | Negative outlook |
| FSA             | AAA             | Aa3             | AA               |
|                 | negative outlook | Under review possible downgrade | Negative outlook |
There is a considerable potential for a further deterioration in the firms’ solvency levels, especially where underlying mortgage portfolios are involved. The performance on structured credit transactions continues to deteriorate and this is likely to trigger further downgrades by the rating agencies as the firms’ balance sheets continue to weaken.

European regulators are closely monitoring the effects of market developments through enhanced supervisory oversight, liaison with other regulators (particularly the NY State Insurance Department), and contingency planning in the event of further downgrades or even insolvency.

**Supervisory Risk Assessment for the insurance sector**

CEIOPS Members and Observers have been asked to classify up to ten risks and challenges, out of list of 39 items, which are currently considered as “moderate” or “significant” in the respective insurance markets. Based on the responses from 24 Member States\(^\text{11}\), the following risks and challenges are classified as the most imminent, considering their probability and potential impact. Included are only those risks and challenges which have been reported by at least five authorities (see Table 2a).

When looking at the number of affected Member States, interest rate risk (especially the low yield environment), lapse risk and the economic cycle are the most wide-spread risks. In this respect, “economic cycle” covers various challenges such as the decline in written business, asset-side risks and the potential rise of fraudulent claims.

Table 2a: Classification of most imminent risks for the insurance sector

<table>
<thead>
<tr>
<th>Most relevant risks - INSURANCE</th>
<th>listed by X supervisors among the Top 10 risks</th>
<th>Cumulative risk score (supervisors assign 2 points for moderate risks and 3 points for significant risks)</th>
<th>Development over the last 12 months</th>
<th>Expected development over the next 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate risk</td>
<td>18</td>
<td>48</td>
<td>1.1</td>
<td>-0.2</td>
</tr>
<tr>
<td>Economic cycle</td>
<td>16</td>
<td>41</td>
<td>1.3</td>
<td>-0.2</td>
</tr>
<tr>
<td>Lapse risk</td>
<td>17</td>
<td>38</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Equity risk</td>
<td>14</td>
<td>33</td>
<td>0.3</td>
<td>-0.5</td>
</tr>
<tr>
<td>Credit risk</td>
<td>12</td>
<td>27</td>
<td>1.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Premium risk</td>
<td>12</td>
<td>27</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Regulatory &amp; reporting changes</td>
<td>11</td>
<td>26</td>
<td>0.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Property risk</td>
<td>10</td>
<td>23</td>
<td>0.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Competition</td>
<td>10</td>
<td>23</td>
<td>0.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Consumer confidence</td>
<td>8</td>
<td>19</td>
<td>1.1</td>
<td>-0.1</td>
</tr>
</tbody>
</table>

Over the last twelve months (see Table 2b) virtually all these risks have increased. The highest increases are reported with regard to the economic cycle, credit risk, consumer confidence and interest rate risk.

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\(^{11}\) AT, BE, BG, CZ, DE, EE, EL, ES, FI, FR, HU, IE, IS, IT, LI, LT, LV, MT, NL, NO, PL, PT, SI, UK.
Table 2b: Development in risks for the insurance sector over the last 12 months

<table>
<thead>
<tr>
<th>Manifestations of risks - INSURANCE</th>
<th>Development over the last 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic cycle</td>
<td>1,3</td>
</tr>
<tr>
<td>Credit risk</td>
<td>1,3</td>
</tr>
<tr>
<td>Consumer confidence</td>
<td>1,1</td>
</tr>
<tr>
<td>Interest rate risk</td>
<td>1,1</td>
</tr>
<tr>
<td>Property risk</td>
<td>0,9</td>
</tr>
<tr>
<td>Competition</td>
<td>0,9</td>
</tr>
<tr>
<td>Lapse risk</td>
<td>0,6</td>
</tr>
<tr>
<td>Premium risk</td>
<td>0,5</td>
</tr>
<tr>
<td>Regulatory &amp; reporting changes</td>
<td>0,5</td>
</tr>
<tr>
<td>Equity risk</td>
<td>0,3</td>
</tr>
</tbody>
</table>

For the next twelve months (see Table 2c), some risks are expected to increase, especially regulatory and reporting changes as well as tax and pension reforms. Regarding consumer confidence, interest rate risk, liquidity risk, the economic cycle and equity risk, some relaxations are expected.

Table 2c: Expected risks for the insurance sector over the next 12 months

<table>
<thead>
<tr>
<th>Expected risks - INSURANCE</th>
<th>Expected development over the next 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory &amp; reporting changes</td>
<td>1,1</td>
</tr>
<tr>
<td>Credit risk</td>
<td>0,4</td>
</tr>
<tr>
<td>Property risk</td>
<td>0,2</td>
</tr>
<tr>
<td>Competition</td>
<td>0,2</td>
</tr>
<tr>
<td>Lapse risk</td>
<td>0,2</td>
</tr>
<tr>
<td>Premium risk</td>
<td>0,2</td>
</tr>
<tr>
<td>Consumer confidence</td>
<td>-0,1</td>
</tr>
<tr>
<td>Interest rate risk</td>
<td>-0,2</td>
</tr>
<tr>
<td>Economic cycle</td>
<td>-0,2</td>
</tr>
<tr>
<td>Equity risk</td>
<td>-0,5</td>
</tr>
</tbody>
</table>

CEIOPS intends to update this survey every six months in order to track the changes in risk assessment. The results are to be included in CEIOPS bi-annual Financial Stability Reports. If necessary, more detailed follow-up analyses might augment the presentation of results.
5. Developments in the European reinsurance sector

The following analysis of developments in the European reinsurance sector in 2008 and 2009 is based on publicly available market research as well as the reporting of key financial figures for the largest European reinsurers provided by CEIOPS Members.

The year 2008 went down as one of the toughest years for reinsurers. Weather–related natural catastrophe losses, especially hurricanes Ike and Gustav, triggered a record-setting hurricane season. Only the hurricane year 2005 caused higher insured losses.

Figure 19: Inflated-adjusted cost of losses over time

At the same time, the worldwide financial turmoil has impaired investment assets and put heavy pressure on profits. 12

While reinsurance prices had further weakened in 2008, the 2009 renewal season showed that this trend was at least stopped 13, but loss history, geography and line of business led to a wide variance in pricing.

Market trends

Reinsurers based in Continental Europe are still dominating the global market. Among the top five global reinsurance groups are Munich Re, Swiss Re, Hannover Re and Lloyds. 14 As regards the regional distribution within the European Union major reinsurers have their headquarters domiciled in Germany, Switzerland, UK and France.

The continuous opening of local European subsidiaries by many Bermudian reinsurers − as a result of the European Reinsurance Directive 2005/68/EC − indicates that their involvement in the region is

expected to grow in the future. In recent years, Bermudian reinsurers have launched subsidiaries or opened offices in Europe, particularly in Ireland and Switzerland. Furthermore, Bermudian based reinsurer PartnerRe Ltd. announced in July 2009 the purchase of Paris Re for about US$ 2bn. Until the end of 2009 the share is supposed to mount to 57 percent. This acquisition boosted PartnerRe Ltd. into the top five global reinsurance groups. PartnerRe is intensifying its business in Europe to improve the geographical presence and risk profile. By bulking up, PartnerRe hopes to compete for the larger clients of its rivals.

The Reinsurance Directive has also made it easier to move reinsurance business portfolios within the European Union. This option is occasionally used for portfolios which are intended to be put into run-off. Increased activities in the run-off sector might be observed in the upcoming years, as companies might seek to unlock capital in preparation for Solvency II requirements.

**Developments in 2009 and outlook**

The first six months of 2009 were labeled by relatively substantial insurance losses due to severe natural catastrophes in areas with high insurance density. Insured losses were US$ 11bn, slightly above the average for the same period in the past ten years. The number of events dropped to 380, which is more or less the average for the past ten years. Although the death toll was 3,000, the number of casualties was well below average.

Economic losses totaled at US$ 25bn (average for the past ten years: US$ 42bn). The loss figures contain a substantial number of weather-related natural catastrophes in Europe and the USA, which explains the relatively high ratio of insured economic losses.

In January, Winter Storm Klaus struck Spain and France heavily. Klaus produced considerable losses and damages to buildings and vehicles. About one million people suffered power cuts. Finally, the insured losses amounted to US$ 2.3bn, with overall direct economic losses at about US$ 3.8bn.

The earthquake at L’Aquila in Italy in April resulted in an economic loss of US$ 2.5bn. Due to the low insurance density in this case the insured loss was relatively low (US$ 260m). The number of fatalities reached 295.

Severe weather in Australia at the end of January and the beginning of February resulted in an economic loss of US$ 1.3bn.

Southern Germany, Austria and southeastern Europe suffered partly their heaviest rainfalls in late June for the last 50 years, creating economic losses of estimated US$ 500m.

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16 See Handelsblatt, July 7th 2009, page 22.
17 See Financial Times Deutschland, July 7nd 2009, page 16.
Table 3: The largest natural catastrophes in 2009: 19

The five largest natural catastrophes in the first six months of 2009

Ranking by overall losses

<table>
<thead>
<tr>
<th>Date</th>
<th>Country/Region</th>
<th>Event</th>
<th>Fatalities</th>
<th>Overall losses US$m</th>
<th>Insured losses US$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>23–25.1.2009</td>
<td>Europe</td>
<td>Winter Storm Klaus</td>
<td>26</td>
<td>3,800</td>
<td>2,300</td>
</tr>
<tr>
<td>6.4.2009</td>
<td>Italy</td>
<td>Earthquake</td>
<td>295</td>
<td>2,500</td>
<td>260</td>
</tr>
<tr>
<td>10–13.2.2009</td>
<td>USA</td>
<td>Severe storms, tornadoes</td>
<td>15</td>
<td>2,000</td>
<td>1,350</td>
</tr>
<tr>
<td>9–11.4.2009</td>
<td>USA</td>
<td>Severe storms, tornadoes</td>
<td>9</td>
<td>1,500</td>
<td>990</td>
</tr>
<tr>
<td>7–28.2.2009</td>
<td>Australia</td>
<td>Wildfires</td>
<td>173</td>
<td>1,300</td>
<td>770</td>
</tr>
</tbody>
</table>

The first six months of 2009

<table>
<thead>
<tr>
<th></th>
<th>The first six months of 2009</th>
<th>10-year average of the first six months in the period 1999-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of events</td>
<td>380</td>
<td>400</td>
</tr>
<tr>
<td>Overall losses (US$m)</td>
<td>25,000</td>
<td>42,000</td>
</tr>
<tr>
<td>Insured losses (US$m)</td>
<td>11,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Fatalities</td>
<td>3,000</td>
<td>24,000</td>
</tr>
</tbody>
</table>

Ranking by insured losses

<table>
<thead>
<tr>
<th>Date</th>
<th>Country/Region</th>
<th>Event</th>
<th>Fatalities</th>
<th>Overall losses US$m</th>
<th>Insured losses US$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>23–25.1.2009</td>
<td>Europe</td>
<td>Winter Storm Klaus</td>
<td>26</td>
<td>3,800</td>
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<td>USA</td>
<td>Severe storms, tornadoes</td>
<td>15</td>
<td>2,000</td>
<td>1,350</td>
</tr>
<tr>
<td>9–11.4.2009</td>
<td>USA</td>
<td>Severe storms, tornadoes</td>
<td>9</td>
<td>1,500</td>
<td>990</td>
</tr>
<tr>
<td>10–18.6.2009</td>
<td>USA</td>
<td>Severe storms, tornadoes</td>
<td>1</td>
<td>1,200</td>
<td>850</td>
</tr>
<tr>
<td>25–26.3.2009</td>
<td>USA</td>
<td>Severe storms, tornadoes, hail</td>
<td>1</td>
<td>1,200</td>
<td>800</td>
</tr>
</tbody>
</table>

Ranking by number of fatalities

<table>
<thead>
<tr>
<th>Date</th>
<th>Country/Region</th>
<th>Event</th>
<th>Fatalities</th>
<th>Overall losses US$m</th>
<th>Insured losses US$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>25–27.5.2009</td>
<td>Bangladesh, India, Bhutan</td>
<td>Cyclone Aila</td>
<td>320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.4.2009</td>
<td>Italy</td>
<td>Earthquake</td>
<td>295</td>
<td>2,500</td>
<td>260</td>
</tr>
<tr>
<td>7–28.2.2009</td>
<td>Australia</td>
<td>Wildfires</td>
<td>173</td>
<td>1,300</td>
<td>770</td>
</tr>
<tr>
<td>April–May 2009</td>
<td>Afghanistan</td>
<td>Floods</td>
<td>160</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>Europe</td>
<td>Cold wave</td>
<td>127</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The credit turmoil, which grew into a global financial crisis by the end of summer 2008, had also an impact on reinsurer’s balance sheets. On the technical side combined ratios were sent higher by an above-average year for catastrophe losses, while the financial crisis impaired assets and put downward pressure on profits. In 2009 the capital base of many reinsurers has shrunk. The decline of capital was based on effects of the capital markets by about 90 percent and on catastrophe losses by approximately 10 percent.\textsuperscript{20}

This capital shortage supported the upward movement of prices in 2009.

\textit{Figure 20: Prices index of Guy Carpenter:}\textsuperscript{21}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure20.png}
\caption{Prices index of Guy Carpenter}
\end{figure}

As the capital of primary insurers diminished, as a result of the financial turmoil, the demand of reinsurance cover increased. This led to higher prices at the renewals January 1\textsuperscript{st} and April 1\textsuperscript{st}. Due to severe competition with Bermudian reinsurers the mark-up slowed down in summer.\textsuperscript{22}

Prices will probably differ in the future. On the one hand, there is intense competition in the property and motor lines; on the other hand, there could be a significant price increase for top exposed lines of national catastrophes, directors & officers’ liability insurance and credit reinsurance.\textsuperscript{23}

The progress of the hurricane season will certainly have an effect on cat prices. The National Oceanic and Atmospheric Administration (NOAA) predicts a hurricane season below average.\textsuperscript{24} The scientists believe El Nino will brake storm intensity.\textsuperscript{25} In 2010, the economy is expected to recover from recession. Demand for additional cover should then increase prices along with the economy.
**Company specific information**

The commercial relevance of a reinsurance undertaking is expressed by the net reinsurance premiums written (net refers to net of retrocessions). This figure is illustrated in the following chart for the years 2004 until 2008, which for some players shows a moderate decline, while others have been able to strengthen their business. As a result, the tendency of the net reinsurance premiums written was inconsistent.

*Figure 21: Net Reinsurance premiums written*

![Net Reinsurance premiums written chart](chart.png)

The (net) combined ratio expresses the degree of underwriting profitability of reinsurance undertakings. The following figure presents this data for 2004 until 2008 and shows mainly a rising (net) combined ratio, indicating some weakening.

*Net combined ratio*

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26 The figures are based on the S&P Global Reinsurance Highlights 2009 Edition report.

27 Net combined ratio expressed as sum of net expenses, net claims and net increase in technical provisions as percentage of net written premiums.
Munich Re

Munich Re had an accumulation of major losses particularly in the second quarter. The combined ratio was 97.7 percent for January to June. In the first half-year 3.5 percentage points of this related to natural catastrophes. Premium income grew by 14.0 percent in the first six months year on year, mainly through acquisitions, and totaled EUR 12.2bn adjusted to eliminate currency effects, premiums increased by 10.9 percent in the first half-year. Munich Re was able to post an operating result of EUR 2.0bn.\(^{28}\)

Swiss Re

Swiss Re announced a net loss of CHF 231mn for the first half-year. The net loss that offset solid underlying earnings in the core business was mainly driven by mark-to-market on hedges on corporate bonds, by impairments on securitised products and by some financial liabilities based on US GAAP accounting. Shareholders’ equity increased to CHF 23.8bn at the end of June. Premium income rose to CHF 14.4bn year on year.\(^{29}\)

Hannover Re

Hannover Re managed to boost gross written premiums at 26.7 percent to EUR 5.3bn as at 30 June 2009. This significant increase derived to a large extent from organic growth as well as the acquisition of ING life reinsurance portfolio. Within the first six month catastrophe losses stayed within the expected bounds. This led to a combined ratio of 97.1 percent. Hence the net profit grew by substantial 66.1 percent year on year inter alia due to the good overall development of business and the special effects in life and health reinsurance to EUR 419m.\(^{30}\)

SCOR

SCOR published a year-to-date net income of EUR 184mn, which is down 24.0 percent against 2008. Natural catastrophe claims rose by 5.6 points primarily driven by the Q1 2009 losses related to European storm Klaus in France and Spain. In the first half-year SCOR achieved a combined ratio of 97.5 percent. Premium income reached EUR 3.3bn, which was up 18.4 percent against the same period in 2008 (16.2 percent at constant exchange rates). The shareholders equity increased

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\(^{28}\) See Munich Re, press release, Munich Re posts €1.1bn profit for first half-year 2009, August 4\textsuperscript{th} 2009.

\(^{29}\) See Swiss Re, News release, August 5\textsuperscript{th} 2009.

\(^{30}\) See Hannover Re, press release, Interim results 2/2009, August 6\textsuperscript{th} 2009.
strongly by EUR 219mn or 6.4 percent to EUR 3.6bn after EUR 143m in dividend paid during the reporting period.

**Risk Assessment**

The financial crisis has increased the perception of political risks. Reinsurers must be concerned that effects of the global recession could put pressure on governments of countries that are less stable to take actions which could trigger political risk losses. Repudiation of commercial and trading agreements, currency exchange problems and the expropriation of assets are expected to become greater risks.  

Catastrophe risks, especially U.S. hurricane risks, are driving the reinsurance business.

*Figure 23: Peak insured risk by catastrophe type:*  

![Catastrophe Insurance Risk](image)

Those risks are controlled with scientific simulation models. The introduction of probabilistic models could lead some companies to ignore risks which the model said were extremely remote. In capital models, quantification of risk at extreme return periods is always more subjective and uncertain than near the mean of distribution.

Premium risks (soft cycles) arise out of an incomplete or inaccurate estimation of future losses. One of the most important reinsurance pricing assumption for the world’s peak peril U.S. hurricane risk is frequency. The AON Benfield Impact Frequency Forecasting Climate and Catastrophe Report reveals that between 1995 and 2008, there has been an increase in the average frequency of hurricanes in the Atlantic.

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In addition, the hurricane intensity has risen dramatically in the same period.

Continued volatility in exchange rates between the cedent’s currencies (predominantly US$) and other currencies in the reinsurance market (prevailing EUR) will continue to increase or decrease capacity.

The financial crisis as well as the severe hurricane season 2008 reduced the capital base of reinsurers, thereby cutting down their ability to carry risks. So far reinsurers have maintained the core capital required to underwrite risk. Certainly the cost of reinsurers’ capital is higher today than it was before. Reinsurers need to focus on rebuilding their capital base as they will be under pressure both internally and from rating agencies to increase capital organically through underwriting profits, not knowing if and when the financial markets will rebound. Companies that are below their rating requirements are at risk for a downgrade. Rating agencies are also likely to take into account the impending insurance losses related to the global crisis. A downgrade could increase counterparty risk, which is material for some reinsurers. This in turn might lead to reputational risk for the reinsurer, a challenge for the undertaking to avoid under any circumstances. Also the ability for retrocession could be affected. Less retrocession capacity means that some reinsurers might have to reduce their capacity, so the worldwide reinsurance capacity could shrink.

The impairment of assets had an abundant impact on the capital base of reinsurers in 2008. Asset price movements were extreme. For assets with long histories, results were near the worst on record, for newer classes of assets the results seemed unprecedented. Spreads on fixed-interest securities widened. The general drop in stock market prices also had an effect, particularly for reinsurers that have had higher equity allocations. Equity markets remain volatile.

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6. Developments in the European pension fund market

This section highlights the main developments recorded in the European occupational pension funds sector, mainly on the basis of feedback provided by CEIOPS Members, but also taking into account market-based information as far as available. Not all EU Member States are covered, in some of them IORPs (i.e. occupational pension funds falling under the scope of the EU IORP Directive) are still non-existent or are just starting to be established (CZ, HU, MT, RO). In DK, FI, FR and SE the main part of occupational retirement provision is treated as a line of insurance business, and is therefore not covered in all parts of this section.

CEIOPS decided to supplement its regular reporting data for 2006-2007 with additional data covering 2008 (2006-2007 data is contained in the CEIOPS Spring Report 2009). The analysis of the impact of the crisis is based on 2008 data. This data was collected in two ways. Firstly on a best effort basis from supervisors for an aggregate preliminary view of 2008 and secondly a supplementary survey carried out on a voluntary and anonymous basis requesting up to date data directly from a sample of IORPs. Data collected from these sources has provided CEIOPS with an approximate view of the financial position of occupational pension funds at the end of 2008. It should not therefore be read as a definitive summary of the current conditions but more as an indicator of the situation. Also included in the report, is a brief synopsis of the supervisory reactions as a result of the downturn and a view of the most immediate risk factors threatening the occupational pension funds sector.

Market Trends

Some Member States have seen structural changes and developments in 2007 and 2008 relating to the laws governing occupational pension funds. While changes are specific to individual Member States there are common trends and aims within the policy developments.

Developments aimed at increasing membership are reported in five Member States; BG has seen the establishment of its first IORP while FI and GR expect membership to increase due to structural changes and increased incentives. IT implemented in 2007 an auto-enrolment scheme for all employees of the private sector, although the increase in membership was not as much as envisaged. The UK also has plans to introduce a requirement for auto-enrolment in 2012 for employees aimed at tackling the perceived inertia in membership.

A change to the funding regime has been reported by ES aiming at increasing the flexibility by reducing the required solvency margins, as the sponsor is responsible for the pension plan evolution for DB schemes. The UK has also issued best practice around the assumptions used for mortality aiming at ensuring they are based on the most up-
to-date evidence. BE introduced a risk-based long-term solvency framework.

Disclosure has also seen development with ES and SK both reporting measures aimed at increasing financial awareness and SK has further harmonised supervisory reporting. PT also reports changes in this area and the UK has reminded trustees of the importance of ensuring that members have full knowledge of their options. IT has reinforced information requirements, introducing a standardised information document, comparable cost indicators, and the obligation to provide estimates of the pension annuities that can be reasonably expected.

The trend for allowing increased flexibility for pension funds in their investment strategies continued. BE, ES, PT and SK reported this kind of regulatory changes.

More detailed specific developments in Member States are contained in CEIOPS Spring Report 200941.


The Directive for the first time provided a legal framework for IORPs wishing to operate cross-border and Article 20 sets rules for this activity. CEIOPS has monitored the scale of activity and published in November 2009 an update on market developments for cross-border activity42.

The market developments report provides a general overview on the cross-border development for IORPs following the implementation by Member States of the Directive. It should be noted that Member States have adopted different approaches to how they identify a cross-border arrangement, and so caution should be exercised in making comparisons of activity between Member States.

The findings show that as at the end of June 2009 a total of 76 IORPs have gone through the required notifications to operate cross border. This is spread across 7 Home Member States (AT, BE, DE, IE, LI, LU and UK). Activity is mainly concentrated in two Home States, the UK having 37 and IE having 25. However, greater diversity is seen in the Host Member States with 22 Member States acting as Host to cross-border IORPs. The results also show that the majority of new cross-border IORPs (established after June 2008) are operating defined contribution schemes.

CEIOPS intends to continue to seek an understanding of market developments in this area and will be updating this data in 2010


The impact of the crisis

The role played by IORPs in the financial crisis is different to that of other areas of financial services. IORPs do not have the same issues in respect to liquidity and the threat of a ‘run on the bank’ in the same way as that of the banking sector. The nature of IORPs, in that they are designed to provide retirement benefits in the future for members, make it a long term undertaking necessitating that decision making must focus on the long-term interests of scheme members. Focusing on a single year’s return can give a misleading picture of the ability of pension funds to deliver adequate pensions in old age. IORPs also have a number of security mechanisms available to them in the event of under-funding.

The impact on IORPs (and in many ways insurance undertakings) is therefore not comparable to the banking sector due to these differing business models, differing liability durations and differing exposures to customer behaviour. The turmoil has hit IORPs primarily in their role as investors. Sharp drops in the equity markets have put their investment portfolios under strain. IORPs were also hit as investors in structured credit products.

Figures 25a and 25b give an estimate of the rate of return on assets for 2007 and 2008 for DB and DC schemes.

**Figure 25a: Rate of return on assets for DB schemes**

Source: CEIOPS (estimated data*)

* For Figures 25a-27c, 2008 data is preliminary and based on partial samples of national pension markets while 2007 data is based on a more complete sample
Developments in 2008 and outlook

As would be expected the financial turmoil has reduced the funding levels for DB schemes across Europe, in some Member States funding is below 100 percent which according to the IORP Directive, Members States may allow for a limited period of time as long as a concrete and realisable recovery plan is in place. Data is however very limited at this
time, Figure 26 shows an estimated position for 2007 and 2008 of the funding level for DB schemes.

In practice, Member States use different methods and assumptions to determine their technical provisions. This results in significant variations in the size of technical provisions across Member States for comparable defined benefit commitments. For example differences exist around establishment of assumptions (best estimates, levels of prudence) which can have a significant effect on the liabilities and so also on the funding level. Member States also differ markedly in their approaches to inflation protection which often needs to be taken into account in the calculations and can affect the size of the liabilities significantly.

There is also in some Member States an interaction between the different elements that make up the pension frameworks across Member States. For example, emphasis on prudent valuation principles, which results in extra reserves, reduces the need for additional security mechanisms. This is also true vice versa. Overall security or solvency can not therefore be understood by viewing Figure 26 in isolation without a full appreciation of all the elements involved including the security mechanisms available.

**Figure 26: Funding levels for DB schemes**

![Funding levels for DB schemes](image)

Source: CEIOPS (estimated data*)

A significant proportion of responding Member States reported that in 2008 as a reaction to the financial turmoil and volatility in the equity market, pension funds (either as rebalancing investment decisions or as a consequence of asset price variations) have seen shifts in the composition of their investment portfolios with a greater weight of debt securities, both corporate and government issued. This has been specifically reported in BG, DE, ES, LV, NL, NO, PL, PT, SK.

The fall in the value of equities is seen by many as the main issue in relation to the financial downturn for pension funds. No Member States have reported material exposure to “toxic assets” and this is seen as immaterial in relation to the fall in asset values and has had a limited impact on the funding levels of schemes in comparison.
However, even with this in mind, equities remain a preferred choice of assets for pension funds in many Member States. This most likely owes in main to the long term nature of the liabilities in respect of pension schemes and, based on long term empirical evidence, the ability for equities to demonstrate the potential to offer a higher return than bonds. While in some Member States equities are seen as a higher risk investment and IORPs have therefore limited exposure to these assets. This has helped in minimising the immediate effects of the downturn in the equity market.

In some Member States where the pension system is mainly DC-based, there is evidence that pension funds have been net buyers of equities during 2008 and, in particular, in the fourth quarter when the crisis hit harder. For IT, this is shown by the data on purchases and sales collected through the sample survey that CEIOPS decided to run this year to supplement the data for this report. This is possibly the case for other DC-based Member States.

According to the qualitative evidence collected, the counter-cyclical behaviour of DC-based pension funds appears to be built in their investment process, often mainly based on a benchmark portfolio (e.g. 30 percent equity, 70 percent bonds) that asset managers are expected to replicate: when equity prices drop, the managers "rebalance" the investment weights towards those of the benchmark by purchasing further equities. This mechanism has a counter-cyclical effect and may act as an "automatic stabilizer" in some contexts if the funds that use this investment process are large enough to influence markets. However, this kind of investment process may also have drawbacks, as it induces herding behaviour that links investment selection to the composition of commonly used market indices, potentially reducing incentives for original market research and hindering the functioning of markets in fixing "informationally efficient" prices.

On the other hand, where pension funds are largely DB-based, a similar behaviour is less evident. In particular, data on purchases and sales from the survey in the NL, show that pension funds are net sellers of equities in the fourth quarter of 2008. However, they were indeed net buyers of equities in the first two quarters of 2008, and in the year as a whole.

While the reduction in the value of equities has reduced the asset side of the balance sheet for pension funds, where greater investment in debt securities prior to the crisis was seen, this does not mean such pension funds are immune from the crisis. While some Member States have seen a level of protection from the crisis for pension funds with a greater focus on bonds in their investment strategy, a low yield environment is an important risk for these pension funds. In particular with regards to the reduction of interest rates that has been seen across the EEA and further cuts are expected by many. This has a significant impact on pension funds that are required to guarantee a rate of return on premiums and have relied heavily on the return from non-equity based investments in achieving this.

Figures 27a, 27b and 27c give an indication of the level of exposure to equities for IORPs with DB, DC and Hybrid schemes.
Figure 27a: Equity exposure DB schemes

Source: CEIOPS (estimated data*)

Figure 27b: Equity exposure for DC schemes

Source: CEIOPS (estimated data*)
As a result of the crisis supervisors reacted differently, depending on the nature of pension funds by for example a closer monitoring of riskier funds, increasing the frequency of reporting, performing stress tests, using the flexibility in their funding frameworks and by increasing disclosure requirements. For more detailed information on supervisory reactions please refer to CEIOPS Spring Report 2009.\textsuperscript{43}

\textbf{Supervisory Risk Assessment October 2009 for the occupational pension funds sector}

CEIOPS Members and Observers have been asked to classify up to ten risks and challenges, out of list of 24 items, which are currently considered as “moderate” or “significant” in the respective pension fund markets. Based on the responses from 18 CEIOPS Members and Observers\textsuperscript{44}, the following risks and challenges (see Table 4a) are classified as the most imminent, considering their probability and potential impact. Included are only those risks and challenges which have been reported by at least five authorities.

\textbf{Main risks}

When looking at the number of affected Member States, equity risk, interest rate risk (especially the low yield environment) and the economic cycle are the most wide-spread risks.


\textsuperscript{44} AT, BE, BG, DE, EE, ES, FI, HU, IT, LI, LV, NL, NO, PL, PT, RO, SI, UK.
Table 4a: Classification of most imminent risks for the occupational pension funds sector

<table>
<thead>
<tr>
<th>Most relevant risks - PENSION FUNDS</th>
<th>Cumulative risk score (supervisors assign 2 points for moderate risks and 3 points for significant risks)</th>
<th>Development over the last 12 months</th>
<th>Expected development over the next 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity risk</td>
<td>15</td>
<td>38</td>
<td>0,3</td>
</tr>
<tr>
<td>Interest rate risk</td>
<td>13</td>
<td>33</td>
<td>0,5</td>
</tr>
<tr>
<td>Economic cycle</td>
<td>11</td>
<td>29</td>
<td>1,5</td>
</tr>
<tr>
<td>Credit risk</td>
<td>9</td>
<td>20</td>
<td>0,7</td>
</tr>
<tr>
<td>Currency risk</td>
<td>8</td>
<td>17</td>
<td>0,5</td>
</tr>
<tr>
<td>Longevity risk</td>
<td>7</td>
<td>16</td>
<td>0,3</td>
</tr>
<tr>
<td>Consumer confidence</td>
<td>7</td>
<td>16</td>
<td>0,6</td>
</tr>
<tr>
<td>Property risk</td>
<td>7</td>
<td>15</td>
<td>0,7</td>
</tr>
<tr>
<td>Internal control</td>
<td>6</td>
<td>13</td>
<td>0,7</td>
</tr>
<tr>
<td>Liquidity risk</td>
<td>5</td>
<td>10</td>
<td>0,8</td>
</tr>
</tbody>
</table>

...over the past month

Over the last twelve months all risks have increased (see Table 4b). By far the highest increase was reported with regard to the economic cycle; strong increases were also observed for liquidity risk, property risk, credit risk and internal control.

Table 4b: Development in risks for the occupational pension funds sector over the last 12 months

<table>
<thead>
<tr>
<th>Manifestation of risks - PENSION FUNDS</th>
<th>Development over the last 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-2 = cons. decrease</td>
</tr>
<tr>
<td></td>
<td>+2 = cons. increase</td>
</tr>
<tr>
<td>Economic cycle</td>
<td>1,5</td>
</tr>
<tr>
<td>Liquidity risk</td>
<td>0,8</td>
</tr>
<tr>
<td>Property risk</td>
<td>0,7</td>
</tr>
<tr>
<td>Credit risk</td>
<td>0,7</td>
</tr>
<tr>
<td>Internal control</td>
<td>0,7</td>
</tr>
<tr>
<td>Consumer confidence</td>
<td>0,6</td>
</tr>
<tr>
<td>Interest rate risk</td>
<td>0,5</td>
</tr>
<tr>
<td>Currency risk</td>
<td>0,5</td>
</tr>
<tr>
<td>Longevity risk</td>
<td>0,3</td>
</tr>
<tr>
<td>Equity risk</td>
<td>0,3</td>
</tr>
</tbody>
</table>

...for the future months

For the next twelve months (see Table 4c), some risks are expected to increase, especially credit risk, internal control and property risk. Regarding interest rate risk, the economic cycle, liquidity risk and equity risk some relaxations are expected.
Table 4c: Expected risks for the occupational pension funds sector over the next 12 months

<table>
<thead>
<tr>
<th>Expected risks - PENSION FUNDS</th>
<th>Expected development over the next 12 months</th>
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<tbody>
<tr>
<td>Credit risk</td>
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<tr>
<td>Internal control</td>
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<tr>
<td>Property risk</td>
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<tr>
<td>Longevity risk</td>
<td>0.0</td>
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<td>Currency risk</td>
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<tr>
<td>Consumer confidence</td>
<td>0.0</td>
</tr>
<tr>
<td>Interest rate risk</td>
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<tr>
<td>Economic cycle</td>
<td>-0.1</td>
</tr>
<tr>
<td>Liquidity risk</td>
<td>-0.2</td>
</tr>
<tr>
<td>Equity risk</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

CEIOPS intends to update this survey every six months in order to track the changes in risk assessment. The results are to be included in CEIOPS bi-annual Financial Stability Reports. If necessary, more detailed follow-up analyses might augment the presentation of results.
Annex 1: Country abbreviations

<table>
<thead>
<tr>
<th>Code</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>AT</td>
<td>Austria</td>
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<td>BE</td>
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<td>Sweden</td>
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<td>SI</td>
<td>Slovenia</td>
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<tr>
<td>SK</td>
<td>Slovakia</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>
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. 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 Member States.

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 undertaking 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 Member States of the EEA operate occupational pension provisions. Data availability varies substantially among the various Member States, which hampers a thorough analysis and comparison of the pension market developments between Member States.

Austria:
Data includes all occupational pension contributions to Pension Undertakings covered by the Austrian “Pensionskassen Act”. The Pillar II provisions are not compulsory. Contributions cover about 11 percent 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.

Bulgaria:
Pension fund statistics relate to institutions for occupational retirement provisions.

Czech Republic:

The Czech private pension funds are not occupational based in nature. The beneficiaries can enter in a contract with the pension fund directly regardless of their occupational status.

**Denmark:**
The pensions fund sector in Denmark is very limited. This sector has the size of 1/50 or 2 pct. of the Pillar II sector (the entire occupationally pensions sector) in Denmark. The number of active (working) members in all pension funds in DK is about 7000 persons and the total amount of assets is approximated € 5 billion. Consequently Finanstilsynset in Denmark do not, for the pension fund sector, regularly report to CEIOPS.

**Finland:**
Statistics do not include Finnish statutory pension schemes operated by individual undertakings/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.

**Hungary**
The data shown for 2008 for Hungary has been based on the mandatory DC private pension funds. These pension schemes are autonomous, DC and operate on a funded basis. Based on the World Bank’s classifications, mandatory pension funds belong to the 2nd pillar.

**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. The data does not include book reserve schemes.

**Latvia**
Pension fund statistics relate to private pension funds and cover both occupational and individual pensions.

**Luxembourg:**
There are 2 supervisory authorities in Luxembourg:
The CSSF 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 SEPCAVs and ASSEPs and the Commissariat aux Assurances is the competent authority for insurance products as well as pension funds governed by the Grand Ducal Regulation of 30 August 2000.
Pension fund statistics cover pension funds governed by the law of 13 July 2005 relating to institutions for occupational retirement provision in the form of pension savings undertakings 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 undertakings
3. agreements with investment fund undertakings
4. foreign management undertakings
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 substitutive 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.

Romania:
The statistics refer to the voluntary pensions, regulated by the Law no. 204/2006 regarding the voluntary pensions, as amended and modified (according to the IORP Directive provisions).

Slovakia:
Recent pension system reforms have introduced mandatory funded occupational pensions as of January 2005.

Slovenia:
Data includes all contributions to pension undertakings, mutual pension funds and contributions collected by insurance undertakings from pension contracts.

Spain:
All the data relates only to occupational pension funds (by Directive 2003/41/EC) which account for about 40 percent 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 percent of the overall non-state related occupational pensions. The remaining occupational pensions are almost entirely covered by life insurance undertakings.

**UK**
The entry for the UK relates schemes covered by the Institutions for Occupational Retirement Provision Directive. Both defined benefit and defined contribution schemes exist in the UK. 2008 date has been based on an estimated aggregate position and the results of a small sample of UK schemes.