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

General Disclaimer
Supervisory data on 2008 in this report are indicative since they rely in several cases on preliminary data, estimates and/or surveyed data not covering the full market yet.
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1. Summary of main issues and conclusions

- 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 will be 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. Of the original monlines, only one insurer has retained a triple-A stable rating from Standard & Poor’s. Others have been downgraded or ratings have been withdrawn. Capital levels have increased as business runs off the books, with little or no new business being written.
- The financial turmoil has hit IORPs primarily in their role as institutional investors. Sharp drops in the equity markets and increasing credit spreads have put their investment portfolios under severe 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 countries, 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

The bankruptcy announcement of Lehman Brothers in September 2008 sparked a further escalation of the financial crisis that had erupted in August 2007. Confidence in financial institutions plummeted, triggering sharp falls in stock prices. In response, national governments have acted decisively to shore up the capital base of individual financial institutions. Central banks across the world have engaged in large-scale coordinated actions to support liquidity conditions in the global money markets. As the outlook for economic growth has substantially worsened and the danger of inflation diminished, 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 a substantial 325 basis points. 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 picked up somewhat (see figure 1). A sustained low interest rate environment is especially challenging for life insurance undertakings and pension funds.

Figure 1: European short- and long-term interest rates

![Graph showing 3 month Euribor and 10 year Euro benchmark bond yields from Jan. 1, 2007 to May 26, 2009.](source: Datastream)
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. In recent months stocks are on the rise again, which is a favourable development for pension funds and insurance undertakings.

Figure 2: European and world equity indices

Because of the turmoil in the financial markets, share price indices of life and non-life insurance undertakings fell behind the European wide share index (see figure 3). Life insurance undertakings recorded the worst equity performance, falling well below the DJ Eurostoxx index. In two years time (2007 and 2008), European life insurance undertakings have lost more than 70% of their market capitalisation. This large loss could be related to life insurance undertakings’ 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.

While European reinsurance undertakings 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 markets and a conservative investment strategy favouring secure government bonds towards equity investments (for more details see section 5). With the rebound of stock prices in recent months, European insurance undertakings have regained a sizeable part of their original market value.
The financial strength ratings of European insurance undertakings have been subject to more downgrades than upgrades in 2008 and the first months of 2009 (see figure 4). Also the number of insurance undertakings with a negative rating outlook has increased since September 2007, while the number of firms with a stable outlook has continuously decreased (see figure 5).

**Figure 4: Development of the largest European insurance group's financial strength: Credit ratings distribution (Year-end)**
As more and more financial institutions published substantial losses over the fourth-quarter of 2008, including AIG which posted record-losses of $61.7 billion, fear 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. Since then CDS spreads have come down in light of the more favorable developments in recent months (see figures 6a and 6b).

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

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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.

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

3 CDS spreads are from Credit Market Analysis, obtained through Thomson Financial Datastream.
Source: Thomson Datastream
That being so, the figure below illustrates that insurance undertakings and pension funds are likely to suffer losses on their fixed income investments due to materialising corporate defaults as forecasted and higher bond spreads. 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. Transmission channels of risks

Disclaimer
Information that follows was taken from publicly available data on 2008 results released by the major EU insurance groups. The exercise does not aim to give a full picture of the impact of the financial crisis on European insurance undertakings, but to show different channels of transmission from financial market developments to the balance sheets and solvency positions of large insurance firms.

The following paragraphs are descriptive in nature without too many figures, which is mainly due to not always comparable information released by each group. Also, in some cases it was not possible to separate the effects/impacts on the insurance part of a financial conglomerate in comparison to the banking part.

Fixed-income instruments
The unceasing effects of the turmoil significantly hit most asset categories, partly aggravated by vanishing liquidity in some market segments, which made it quite impossible to obtain reliable asset prices. As a consequence, in some cases, the enviable adjustments in order to advantageously manage counterparty and liquidity risk had not been possible.

Although their portfolio value decreased in 2008, fixed-income assets continue to represent a significant share (in the range of 40% to 80%) of the investment portfolio of insurance undertakings analysed. In many cases more than half of the fixed-income portfolio consists of government bonds.

In the reporting year, almost all undertakings had to record impairments on their investment portfolios and this was mainly due to the failure of big counterparties (Lehman Brothers, some Icelandic banks) and to depressed values of corporate high-yield bonds. Specifically, a fixed-income portfolio is harmed if the full payment of interest and principal is not expected and/or undertakings cannot or do not want to keep the bond until maturity.

To face the severe situation of financial markets all undertakings adopted a form of de-risking policy. Some of them increased their exposure to AAA-rated counterparties, others adopted a policy oriented towards decreasing equity exposures by privileging less volatile investments in government securities. Others implemented hedging strategies using derivatives. In this last case, equity hedging had been implemented by using options and futures on indices and individual securities, while bond hedging had been implemented by using instruments such as interest rate options and swaps as well as credit default swaps.

Finally, the breakdown of investments by IAS/IFRS categories shows a generic reduction of available for sale financial assets (mostly due to the decline in the market value of equities caused by the negative market trend) and a simultaneous increase in loans and receivables due to low interest rates.

Structured Finance
Not all monitored groups delivered information about their exposure to asset-backed securities, though in many cases they represent only a residual part of the total fixed-income portfolio. Exposure to the US sub-prime or Alt-A residential mortgage-backed securities was more prominent in those groups which traditionally are more linked with the US market or which have used some kind of credit enhancement via monolines.
Based on the information available, losses arising from structured finance investments seem to be prevalingly manageable. A majority of undertakings for which detailed information is publicly available holds diversified investments both across regions and collateral. Impairment rates for 2008 tend to be between 10% and 20%, however differing largely across asset classes (e.g. up to 50% for a collateralised bond obligation portfolio).

Structured finance portfolios of large insurance undertakings still seem to be of relatively high quality though rating agencies downgraded huge numbers of assets by several notches. At the end of 2008, nearly all undertakings which disclose a breakdown by rating classes hold more than 80% in AAA-rated assets, only about 5% is invested in non-investment grade assets.

Illiquid markets have forced investors to find alternatives for mark-to-market valuation. During 2008, the share of assets valued according to market prices has declined significantly, instead valuation according to comparable transactions or according to models became more common.

In order to cope with illiquid markets, one insurance group decided to enter into an illiquid asset back-up facility with its government with the aim of covering those assets (distressed assets, Alt-A, RMBS) whose prices mainly suffered for the lack of liquidity in the financial market.

A further rise of default rates would negatively impact the performance of structured finance assets, particularly in the case of Alt-A assets which make up a sizeable portion in the structured credit portfolios of some firms.

**Investment property**

Developments in investment property markets are of importance for European insurance undertakings given that these entities often have sizeable investments in real estate. However, property investments in the largest European groups are not a significant percentage of their total investments, in our sample, this percentage ranges from less than 1% to 5%, which might imply that the current downturn in property markets will not have a large impact on the financial and solvency position of the major insurance groups.

These investments often take the form of direct investments, but there is also investment in property funds and commercial mortgage-backed securities (CMBS).

When focusing on commercial property, the main risks associated with this segment are the risk of an increase in vacancy rates, the risk of a decrease in rental income, the risk of a fall in prices, and the risk of liquidity if due to an expected fall in prices a massive sale of properties sets in. The fall in ordinary investment income – caused by lower or less regular rent payments – has a direct impact on the insurance undertaking’s profit & loss account while the fall in market prices affects the insurance undertaking’s ability to cover technical provisions, its available solvency margin, not to mention the impact of a forced sale of this kind of investment.

Conditions in some commercial property markets have been deteriorating, and potentially worse economic conditions are likely to weaken at least some commercial property markets further. This could, in turn, negatively affect insurance undertakings’ investment in commercial property.

Commercial property risks have increased for many commercial property investors since summer 2008, mainly due to falling property prices in some countries and
segments. Commercial property capital values in the Eurozone declined by nearly 4% in 2008 while first data for 2009 indicates even higher declines.\(^4\)

*Figure 7: Total Return Indices (income + capital gain) in selected European property markets*

<table>
<thead>
<tr>
<th>Year</th>
<th>France</th>
<th>Germany</th>
<th>Ireland</th>
<th>Netherlands</th>
<th>Spain</th>
<th>UK</th>
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<td>250</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>2003</td>
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<td>300</td>
<td>300</td>
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<tr>
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<td>450</td>
<td>400</td>
<td>400</td>
<td>400</td>
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</tr>
<tr>
<td>2005</td>
<td>500</td>
<td>550</td>
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<tr>
<td>2006</td>
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<tr>
<td>2007</td>
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<td>750</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>700</td>
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<tr>
<td>2008</td>
<td>800</td>
<td>850</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>800</td>
</tr>
</tbody>
</table>

Source: Investment Property Databank, Datastream

Demand for rented commercial property – which had held up relatively well in 2007 and early 2008 – appears to have fallen, at least in the case of office space, after June 2008, thus contributing to a more uncertain income outlook for property owners. Demand was reduced especially for non-prime properties (e.g. non-modernized buildings in less attractive locations).

The growth of rents for prime office space slowed down in the second and third quarters of 2008. In the third quarter, an average growth of about 3% year-on-year was recorded for a set of 20 large cities in the Euro area (the growth rates for the individual cities, however, ranged from -5% to 14%). Vacancy rates remained at rather low levels, namely at around 8%, on average, in the third quarter of 2008, but they are likely to increase in many cities with property developments still in the pipeline. Demand for rented commercial property was probably affected by the slowdown in economic activity, and a further reduction in demand cannot be excluded amid the deteriorating economic outlook.\(^5\)

Developments in the market indicators for commercial property undertakings suggest that the outlook for the sector remains uncertain and has deteriorated further. Share prices of undertakings owning, and engaged in trading and the development of income-producing property have performed less well than the overall stock market since May 2008, and the returns relative to the overall stock market witnessed between 2004 and early 2007 have now been erased.

In addition, the expected default frequencies of Euro area commercial property undertakings have been risen since mid-2007 – in particular those for the weaker undertakings – and currently stand at levels last seen in the 1990s.

\(^4\) See European Central Bank, Financial Stability Report June 2009

Credit insurance

Credit risk has a strong impact on business activity, so that the existence of credit insurance to cover the policyholder from the risk of its customers’ insolvencies, means protecting their solvency and liquidity and, ultimately, the viability of business, by strengthening the security of commercial transactions.

Credit insurance, in addition to being an instrument of credit protection, is also a mechanism for managing that risk. The insurance undertaking provides the commercial policyholder updated and adequate information on the credit risk of its customers, monitors the risk and, in case of loss, compensates it.

Therefore, credit insurance is important for the development and maintenance of economic activity and the enterprises network, allowing the policyholder to maintain their activity by allowing deferred payment for their products and services.

This is a class of insurance conditioned by the business cycle: in periods of expansion it produces a significant accumulation of reserves: and in times of recession, the business is severely affected by reduced business activity and loss of confidence, reduced new premium business and increased claims expenses.

In the field of credit insurance, the sharp slowdown in the economy and the current state of financial markets, are affecting the liquidity of several insured undertakings that are experiencing credit restrictions and a general tightening of financing conditions. This situation causes for credit insurance undertakings an increase of claims, which imply an increase in technical expenses, as a result of increased claims settlement and the strengthening of technical provisions expected to meet future payments of the current risks. This has led to significant losses in this business during 2008 where the combined ratio for many undertakings reached more than 100%.

The insurance undertakings have reacted to their losses by using, where available, equalisation provisions built up in favorable periods (a kind of anti-cyclical dynamic provisions), trying to increase premium levels and limiting exposure to certain markets and undertakings more exposed to the business cycle. That is to say, the credit insurance supply has decreased.

To avoid the procyclical effects of a restriction of credit protection in the economy, several governments have adopted measures to support the supply of this insurance, through reinsurance or coinsurance programs, with the objective of maintaining the flow of commercial credit.

Reinsurance and counterparty risk

European insurance undertakings are constantly reviewing their reinsurance arrangements and associated with it their credit risk which includes counterparty risk. This is not necessarily due to the financial crisis but should be constantly undertaken by financial institutions in order to provide a sufficiently good risk management. Many undertakings have faced substantial investment losses during the course of the financial crisis which has induced adequate measures to reduce their risk exposure. Some undertakings have begun to weekly review and adjust their internal limits. Also, undertakings continue to review the geographical distribution of their risks and diversification as such.

One way to reduce the risk exposure is via reinsurance. Undertakings were able to set capital free by ceding business to reinsurance and, thus, transfer risks towards reinsurance undertakings. In that case, it becomes even more important for firms to assess the quality of their counterparties (in that case reinsurance undertakings). Primary insurance undertakings closely evaluate the financial soundness of their reinsurance counterparties in order to reduce their own credit risk. The risk exposure
can also be reduced by the sale of investment assets and hedging strategies. In general, counterparty risk has proven to be an important issue for all undertakings’ risk managements. A default of any financial institution could impair the investments of an insurance undertaking and reduce the value of them. This could not only include reinsurance undertakings but also issuers of securities and borrowers of underlying loans or mortgages. Other counterparties may be banks, hedge funds, investment funds, derivative counterparties and many other financial market participants. Some reinsurance undertakings, for example, are therefore looking to improve their capital base as to prevent downgrades.

A downgrade of a reinsurance undertaking (as has happened in some cases in the recent past)\(^6\) could have a substantial impact on any insurance undertaking. For primary insurance undertakings, it could increase the cost of financing in general for the company as the reinsurance cover is less sure under these circumstances. This could also have an effect at how the public views this insurance undertaking and make it harder for him to underwrite new policies and damage its position in the market. It could even lead towards higher lapse rates. It could also trigger collateral requirements towards other parties if the insurance undertaking has re-insured itself. If a reinsurance undertaking gets downgraded beyond a certain level, this may also require insurance undertakings to cancel their policies with that reinsurance undertaking due to internal policies. Reinsurance undertakings might in the case of a downgrade also be required to post collateral or provide other guarantees. Their cost of financing might also increase. Their position in the market might deteriorate as well and make it harder for them to attract new business. Overall, a substantial downgrade of a reinsurance counterparty could have a significant impact on any insurance company (be it reinsurance undertaking or primary insurance undertaking).

Another development seen in the reinsurance sector is that prices tend to increase, especially in sectors which have suffered high damages in recent times like Directors & Officers liability insurance, credit and surety insurance, due to lower company ratings and higher rates of insolvencies in the real economy, and catastrophe insurance in regions which had a high level of catastrophic events. Price increases are due to several developments: On the one hand, demand for reinsurance cover has risen, as can be seen above. Some insurance undertaking’s capital base has weakened which demands them to search for capital relief via reinsurance coverage. The demand for large transactions has risen as well. Also, insurance undertakings tend to be more risk averse and try to pass on their risks through reinsurance and only a few undertakings are able to handle these.

On the other hand, the supply of other capital sources has been reduced. Capital markets are under pressure. Alternative sources of capital have been reduced as well. Also the market for insurance linked securities (ILS) has shrunk in the second half of 2008. Overall, this could lead to price increases for reinsurance, i.e. towards a hardening of the reinsurance market.

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\(^6\) For example, Swiss Re was downgraded by Standard & Poor’s, Moody’s and A.M. Best in February 2009.
**Special topic: Influenza A(H1N1) - "Swine Flu"

The major outbreak of influenza A(H1N1) – also dubbed as swine flu – in late April in Mexico very quickly evolved into a global epidemic. Within less than two months, more than about 40,000 infections in more than 70 countries and nearly 200 fatalities have been reported.

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 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.

*The possible effects on insurance business*

A global pandemic could affect insurance undertakings via two transmission channels, both on the liabilities and the asset side.

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 in the whole population. QIS4 used a 10% increase in mortality rates to model a 1-in-200-years event (underestimates the mortality shock of the Spanish Flu which is usually not considered having been 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% 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*

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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).

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% worldwide (~1.7 bn people)</td>
<td>Global GDP -2%</td>
</tr>
<tr>
<td></td>
<td>Death rate: 2.5% of infected persons (~42 mill people)</td>
<td></td>
</tr>
<tr>
<td>Lowy institute/ Brookings</td>
<td>Extreme scenario: 142 mill deaths worldwide (~2% 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>

In the current recession, the direct impact of a severe pandemic might be even lower than in normal times. However, such 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.
4. Update on monolines

Financial guarantee insurance undertakings (or monolines) are firms that provide credit insurance to lenders or bondholders. There are nine monoline firms, 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. In general, there has been further downward migration of the ratings for monolines from the rating agencies. Investors that were exposed to monolines have taken their losses, and the focus of monolines has now shifted to managing the run-off of their insurance books.

Of the original monolines, only Assured Guaranty still retains a triple A stable from Standard & Poor’s which means an effective ability to write new business (where the US Municipal Bonds sector is in effect the only open market). However, Moody’s has recently put under review for a potential downgrade the Aa2 Financial strength rating of Assured and Fitch has downgraded the rating to AA with an evolving rating watch. FSA’s (Financial Security Assurance) rating has recently been affirmed by S&P, but a negative outlook was assigned due to the longer than expected merger process with Assured and the guarantees to be provided by the existing owner, Dexia. Moody’s has put the existing rating under review for a possible downgrade and Fitch downgraded the rating to AA+, but has remained on rating watch negative.

Ratings for FGIC and ACA have now been withdrawn for all rating agencies.

As rating agencies review their methodologies for structured finance transactions, ratings are expected to come under further downward pressure.

Monolines continue to look at other ways to conserve capital, for example by ceding risk to other insurance undertakings (where both MBIA and Assured Guaranty have reinsured books of US municipal business from FGIC and CIFG respectively). Capital levels also increase as business runs off the books, with little or no new business being written, and two of the larger monolines have (MBIA) or are looking to restructure (Ambac) to create new entities with sufficient ratings to write US municipal business. However, there are legal challenges to the restructuring of MBIA into a "good" portfolio and "bad portfolio". Such announcement has triggered a rating downgrade on the "bad" part, and as a consequence additional write-downs at many financial institutions exposed to this part. A class action suit against MBIA for fraudulent restructuring has been announced.

However, some of the smaller monolines remain very stressed and ratings have been withdrawn (FGIC and ACA) following the move to junk status. 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. If Syncora achieves a solvent position, primarily through a deal to be completed made with its banking policyholder counterparties, that suspension may be relaxed. Another, CIFG, has recently been restructured, following a deal made with its banking policyholder counterparties. Most monolines continue to seek commutations with banking counterparties, with several transactions having been successfully completed, providing further capital relief and reduction in outstanding risk.

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9 Direct writing, as opposed to reinsurance monolines, prior to Berkshire Hathaway’s entry.
Some monoline groups (Ambac, FSA and MBIA) provided guarantees relating to their Guaranteed Investment Contract / Asset Liability Management businesses within the wider groups. Ratings migrations have now caused crystallisation of connected liquidity stresses that have now largely been addressed.

Table 1: Monoline ratings as at 27.05.09

<table>
<thead>
<tr>
<th></th>
<th>S&amp;P</th>
<th>Moody's</th>
<th>Fitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambac</td>
<td>A negative outlook</td>
<td>Baa3 developing outlook</td>
<td>Rating withdrawn</td>
</tr>
<tr>
<td>FGIC</td>
<td>Withdrawn</td>
<td>Withdrawn</td>
<td>Rating withdrawn</td>
</tr>
<tr>
<td>MBIA</td>
<td>BBB+ negative outlook</td>
<td>B3 Developing</td>
<td>Rating withdrawn</td>
</tr>
<tr>
<td>Syncora [previously SCA]</td>
<td>R</td>
<td>Ca Outlook developing</td>
<td>Rating withdrawn</td>
</tr>
<tr>
<td>CIFG</td>
<td>BB developing outlook</td>
<td>Ba3 developing outlook</td>
<td>Rating withdrawn</td>
</tr>
<tr>
<td>Radian</td>
<td>BBB- Creditwatch negative</td>
<td>Ba1 Outlook stable</td>
<td>Rating Withdrawn</td>
</tr>
<tr>
<td>ACA</td>
<td>withdrawn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assured</td>
<td>AAA Negative outlook</td>
<td>Aa2 Under review possible downgrade</td>
<td>AA Rating watch evolving</td>
</tr>
<tr>
<td>FSA</td>
<td>AAA/ Creditwatch negative</td>
<td>Aa3/ Under review possible downgrade</td>
<td>AA+ Rating watch negative</td>
</tr>
</tbody>
</table>

Whilst the claims paying resource within parts of the sector is still considerable, there remains considerable risk for further deterioration; for example if firms' restructuring plans are unsuccessful, the underlying economic fundamentals deteriorate further or if rating agencies re-evaluate their stance. As previously noted, it remains likely, that more monoliners will move towards run-off or significantly changed business models, and may be subject to further downgrades.

European regulators are monitoring closely 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.
5. Developments in the European insurance sector in 2008

The following analysis of the developments in the European insurance sector in 2008 is based on the national fast-track reporting of key figures and on the qualitative reports prepared in March 2009, both by national supervisory authorities. These national reports do not cover 100% of each market and for few countries no information has been available, although all main markets are covered. For these reasons this analysis is only indicative.

Development in premiums and claims

On average EU gross written premium growth has persisted throughout 2006-2008, except for the life business which has shown a contraction of 1,3% in 2008.

Figure 8a: Growth in gross premiums written*

* growth rates are calculated on premiums in local currency.

Source: CEIOPS
More than a half of the reporting countries showed an increase in 2008 in the total gross premiums written in local currency.

*Figure 8b: Growth in gross premiums written from 2007 to 2008*

* growth rates are calculated on premiums in local currency.

*Source: CEIOPS*

**Life Sector**

In the life sector the developments in the national markets were non-uniform. Some countries, especially in the eastern part of Europe (PL, SK, RO, BG), still experienced high growth of premiums written. Also in PT, DK and in ES (composite entities included) life market was clearly growing. Almost half of the countries reported on premium decline, which was especially sharp in some of the Baltic countries, as well as in MT, IT, LI, IE and the UK (mainly driven by pension management business).

Competition and market conditions for life business were challenging in 2008: During the first three quarters of 2008, the increase in interest rates revived competition between life insurance products and bank savings products. During the last quarter the financial crisis had a strong negative influence on demand and sales of unit-linked products.

**Non-life Sector**

According to the fast track reports the premium growth continued in 2008 in most countries. Premium increase was highest in BG, SK, LT, LV and in PL. Also LU, LI and MT showed high figures, mainly thanks to the growth of foreign business. UK, ES and DE reported on a premium fall, also in IT, IE and in DK the developments were slightly negative.

**Profitability in 2008**

As to the technical result of non-life business half of the countries reported on a lower combined ratio than in 2007. However, the weighted aggregate net combined ratio for the reporting countries seems to be slightly higher (99.7%) in 2008, compared with
96.3% in 2007. Many countries reported on storms and hail which caused considerable damages. The largest natural catastrophe was winter storm Emma in March. But as a whole, Europe witnessed a lower natural catastrophe activity than in the previous year.

**Figure 9a: Net combined ratio**

![Net combined ratio graph](image)

*Defined as claims and operating expenses divided by premiums, net of reinsurance. Data excludes composite insurance undertakings.*

**Source: CEIOPS**

Figure 9b shows the components of the combined ratio in the reporting countries in 2008. The share of expenses is higher than the weighted average in many countries in the eastern part of Europe (RO, HU, LT, BG, LV, PL, SK) and also in IE, PT, UK, LI, FR, GR, AT, though some countries reported a lower expense ratio in 2008 compared to 2007 (RO, BG, LV, PL, GR, LT).

**Figure 9b: Net combined ratio**

![Composition net combined ratio graph](image)

*Data excludes composite insurance undertakings.*

**Source: CEIOPS**
Strong negative developments on stock markets, high volatility on interest rates and 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 of this the return on equity figures dropped substantially in 2008. For the first time in a number of years, many insurance undertakings reported bottom-line losses. The national fast track reports (covering 22 countries) reveal that in 2008 the weighted average return on equity for the reporting countries in the life sector was 3.9% (14.4% in 2007). The corresponding figure in the non-life sector was 5.3% (16.6% in 2007) and for composite undertakings 6.4% (26.0% in 2007). The only country showing a higher return on equity in 2008 was PL. The drop in return on equity was highest in FI and in SE.

*Defined as profit or loss after tax for the financial year divided by total capital and reserves.
Source: CEIOPS

Financial Strength

Because of the financial crisis the solvency buffers (available solvency margin - required margin) became thinner in 2008 especially in life business. Undertakings have increased their capital buffers and some have received capital injections from governments or third-party consortiums to keep the solvency ratio adequate. Financial institutions have also issued state-guaranteed bonds. Also accounting rules have been utilised: in many countries 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.

According to the national fast track reports (19 countries) the solvency ratios have decreased during 2008, especially for life undertakings. The aggregate solvency ratio for the reporting countries in the life sector was 230% at the end 2008 (238% at the
end 2007). In the non-life sector the corresponding figure was 351% (365% at the end 2007).

However, we have to remember that the aggregated country data contains very big differences between insurance undertakings within one country.

*Figure 11: Solvency ratios*

*Solvency ratios 2008*

*Defined as available solvency margin divided by required solvency margin. Total includes data on composite insurance undertakings. Life and Non-life data refer to pure Life or Non-life insurance undertakings.

Source: CEIOPS

Several countries reported on one or few undertakings whose solvency ratio fell below the minimum required level during 2008. Those undertakings received new capital from owners, they subscribed for subordinated loans or they were merged. Some countries reported also on one to two undertakings whose technical provisions were not fully covered by eligible assets or whose capital fell below the minimum level. But all in all, the number of needed emergency actions by the undertakings in 2008 remained fairly low.

**Assets**

Most of those countries which showed biggest growth in premiums succeeded also in increasing their asset base (SK, LV, BG, LI). But generally insurance undertakings had to report reductions in assets, for the first time in a number of years. Amount of assets fell most in EE, also in FI, UK and in PT there was a significant decrease. Total weighted average increase of assets in the reporting countries was 3,6%.
At the end of 2007 the share of equities and units in unit trusts was more than 25% in nine countries. One year later the share was still more than 25% only in five countries. In the total assets the equities accounted for 23% of all assets. Most of those countries where the weight of equities has traditionally been small reported on a stable mix of assets. Figure 13 shows that the variation of allocations between countries is still substantial.

10 For DE preliminary data on total assets refer to total investments for 2008. This data is compared in figure 10 with total assets of 2007 resulting in a small decline of total assets. Total assets figures for 2008 were not available at the time of the delivery of the report (quarterly basis).

11 For DE data on the asset allocation is based on quarterly reporting, which is risk-based. Therefore, some positions cannot be divided into fixed income or equity positions. Balance sheet data for 2007 show a breakdown of ca. 37,8% in fixed income, 24,2% in shares and units in unit trusts and 38% in other assets. This can be regarded as indicative for 2008 annual data.
Challenges and outlook for 2009

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. Now deep recession of the real economy - GDP growth is negative in 2009 in EU-area - is a major challenge affecting the whole business opportunities and environment.

Volumes in the non-life business will be flat or they will decrease. Claims can remain stable, meaning that combined ratios could still stay at acceptable levels. While operating expenses have been increasing in 2008, these are now expected to be adjusted downwards according to volumes.

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

But a low level of investment income is the most contributing factor in reducing profits, especially for life insurance undertakings. In 2009, the yields on equities can remain modest, losses on investments in commercial property and in corporate bonds probably will materialise to a larger extent and interest rate levels will remain low. All in all, outlook on the insurance industry is negative primarily driven by concerns over future profitability.

Solvency positions of insurance undertakings have already deteriorated and the weak undertakings have received new capital. However, there has not to date been a widespread need to access the capital markets. Also reduced dividends have helped undertakings to preserve capital. 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.
Maximum guaranteed interest rate allowed for life insurance policies varies from one country to another. Products with highest guaranteed interest rates are 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 countries. 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 countries have seen slight increases in lapse rates but the risk hasn’t materialised to a significant extent in any country so far.

**Actions of Supervisory Authorities during the financial crisis**

All supervisory authorities have intensified contacts and meetings with insurance undertakings, especially with those undertakings which are in worst positions or which have highest risks. Some undertakings have been asked to submit a recovery plan. Also targets and subjects of on-site inspections have been re-oriented according to verified risks. The crisis has generated more work to the supervisors which supervisors are more than willing and capable of doing. PL and NO have hired new specialists in their organisations.

Other reported actions and initiatives (on top of regular analytical work) are:

**Increased frequency of reporting**

A majority of surveyed Member States increased the frequency of the reporting on their investments and/or hidden reserves (usually the frequency now is monthly instead of quarterly).

Some Member States introduced a more frequent solvency reporting (AT, BG, CY, EE, FI, HU, MT, PT, SL).

Several Member States introduced some kind of regular liquidity monitoring (AT, CZ, DE, FR, HU, LT, IT, PT).

**Additional surveys on investment risks**

In addition to the CEIOPS surveys (on Lehman, AIG, structured credit products, banking sector, Madoff) several countries performed surveys on various investment exposures: Impact of the crisis on the funding ratio (BE), Tests on solvency buffer to cover future investment losses (BG), Exposure to banks and investment firms (CY), Exposure to countries with high CDS spreads (DE), Exposure to automotive industry (DE), Exposure to banks issuing covered bonds (DE), Exposure to property (HU), Guarantees given (IE), Lapses and premium written (IT), Ad hoc data request
regarding investments in bonds and real estate, both in book and market value (LT), Exposure to credit insurance (ES).

*Early submission of projections on quarterly or annual results*

Some Member States requested insurance undertakings to report key data on their annual results (or projections) soon after year-end (AT, BE, DE, FR).

Similarly, early warnings on Q3 results have been requested in some Member States (NO).

*Stress tests*

(Additional) stress tests have been performed in some Member States (BE, BG, CY, DE, DK, EE, FI, HU, IT, NL, PT, SE with respect to liquidity, NO, UK).

It was further evaluated which stress tests are used for internal purposes in insurance undertakings (IE).
**Supervisory ladder**

Some countries took measures that relate to the supervisory ladder: Development of intervention ladder (NL), Traffic light system (DK, SE).

**Other initiatives**

Some Member States set up special Task Forces dealing with the crisis, also together with other bodies like central banks or ministries of finance (DE, IT, RO).

Surveys have been conducted on the use of valuation methods (DE), also guidance on the concrete transposition of valuation changes has been issued in some Member States (ES, PT, UK).

Special surveys on credit insurance have been conducted in some Member States (BG, ES, HU).

In some countries specific undertakings were followed more closely (AT, ES, NL) and some were asked to submit a solvency plan/recovery plan (AT, LV, NL, UK).

Assessments of the macro financial situations were undertaken (BG, DE) and any potential contagion risks (BG).

Temporary adjustments in regulation were agreed (DK, ES, FR, IT, UK) regarding e.g. interest rates to calculate the value of the technical provisions, valuation of assets.
6. Developments in the European reinsurance sector

General developments

Driven by high claims from weather-related natural catastrophes, 2008 was – on the basis of figures adjusted for inflation – the second most expensive year in record. Only in the hurricane year 2005 higher insured losses occurred\(^{12}\).

Figure 14: Insured catastrophe losses 1970-2008

![Insured catastrophe losses 1970-2008](image)

Source: Swiss Re

In 2008, the course of the softening global reinsurance market continued. In the European renewal season 2009 the prices increased in certain segments.

Structure of the European reinsurance market

Reinsurers based in Continental Europe continue to dominate the global reinsurance market. Four of them are present among the top five global reinsurance groups in 2008, i.e. Munich Re, Swiss Re, Hannover Re and Lloyd’s\(^{13}\). As regards the regional distribution within Europe major reinsurers have their headquarters domiciled in France, Germany, Switzerland and the UK.

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. Increased competition in the European market\(^{14}\) could be the consequence of such a development.

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\(^{12}\) See Swiss Re, News release Preliminary Swiss Re sigma estimates that over 238 000 people were killed by catastrophes in 2008, insured losses soar to USD 50 billion, December 18th, 2008.

\(^{13}\) See Zeitschrift für Versicherungswesen 2008, p. 701.

The Reinsurance Directive has also made it easier to move reinsurance business portfolios within the European Union. This option is often used for portfolios which are intended to be put into run-off. Therefore, increased activity is expected in the run-off sector, as undertakings seek to unlock capital in preparation for Solvency II requirements.

**Developments in the reinsurance sector in 2008**

A large number of tropical cyclones and the earthquake in China made 2008 one of the most devastating years on record. Although there was a drop in the number of loss-producing events compared with the previous year (from 960 to 750), individual catastrophes pushed up the numbers of victims and the losses appreciably. Throughout the world more than 220,000 people died as a result of natural catastrophes in 2008. Overall losses caused by natural catastrophes totalled some US$ 220bn (2007: US$ 82bn). Insured losses related to natural catastrophes in 2008 rose to about US$ 45bn, about 50% higher than in the previous year. Man made disasters also remained costly in 2008. Explosions and major fires resulted in losses of US$ 4.8bn. Damages to industry and industrial warehouses accounted for approximately US$ 2.1bn of this amount while oil and gas-related incidents – excluding offshore damage from hurricanes – cost insurance undertakings another US$ 1.5bn. In total property insurance undertakings will face claims of over US$ 50bn, making 2008 the second costliest year in terms of insured losses.

**Table 2a: The ten largest natural catastrophes in 2008:**

<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>12.5.2008</td>
<td>China</td>
<td>Earthquake</td>
<td>70,000</td>
<td>85,000</td>
<td>300</td>
</tr>
<tr>
<td>6.–14.9.2008</td>
<td>Caribbean, USA</td>
<td>Hurricane Ike</td>
<td>129</td>
<td>30,000</td>
<td>15,000</td>
</tr>
<tr>
<td>10.1–13.2.2008</td>
<td>China</td>
<td>Winter damage</td>
<td>129</td>
<td>21,100</td>
<td>1,600</td>
</tr>
<tr>
<td>21.8–3.9.2008</td>
<td>Caribbean, USA</td>
<td>Hurricane Gustav</td>
<td>100</td>
<td>10,000</td>
<td>5,000</td>
</tr>
<tr>
<td>June 2008</td>
<td>USA</td>
<td>Floods</td>
<td>24</td>
<td>10,000</td>
<td>500</td>
</tr>
<tr>
<td>2.–5.5.2008</td>
<td>Myanmar</td>
<td>Cyclone Nargis</td>
<td>84,500</td>
<td>4,000</td>
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<tr>
<td>May – June 2008</td>
<td>China</td>
<td>Floods</td>
<td>170</td>
<td>2,100</td>
<td></td>
</tr>
<tr>
<td>13.–24.11.2008</td>
<td>USA</td>
<td>Wildfires</td>
<td></td>
<td>2,000</td>
<td>600</td>
</tr>
<tr>
<td>1.–2.3.2008</td>
<td>Europe</td>
<td>Winter storm Emma</td>
<td>14</td>
<td>2,000</td>
<td>1,500</td>
</tr>
<tr>
<td>22.–26.5.2008</td>
<td>USA</td>
<td>Tornadoes</td>
<td>12</td>
<td>1,600</td>
<td>1,325</td>
</tr>
</tbody>
</table>

15 See Munich Re, Press release Catastrophe figures for 2008 confirm that climate agreement is urgently needed, December 29th, 2008.
16 See Munich Re, Press release Catastrophe figures for 2008 confirm that climate agreement is urgently needed, December 29th, 2008.
17 See Swiss Re, Media Release, December 18th, 2008.
Table 2b: The ten largest natural catastrophes in 2008: 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>6.–14.9.2008</td>
<td>Caribbean, USA</td>
<td>Hurricane Ike</td>
<td>129</td>
<td>30,000</td>
<td>15,000</td>
</tr>
<tr>
<td>21.8–3.9.2008</td>
<td>Caribbean, USA</td>
<td>Hurricane Gustav</td>
<td>100</td>
<td>10,000</td>
<td>5,000</td>
</tr>
<tr>
<td>10.1–13.2.2008</td>
<td>China</td>
<td>Winter damage</td>
<td>129</td>
<td>21,100</td>
<td>1,600</td>
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<tr>
<td>1.–2.3.2008</td>
<td>Europe</td>
<td>Winter storm Emma</td>
<td>14</td>
<td>2,000</td>
<td>1,500</td>
</tr>
<tr>
<td>22–26.5.2008</td>
<td>USA</td>
<td>Tornadoes</td>
<td>12</td>
<td>1,600</td>
<td>1,325</td>
</tr>
<tr>
<td>29.5–1.6.2008</td>
<td>USA</td>
<td>Severe storms, floods</td>
<td>1,500</td>
<td>1,100</td>
<td></td>
</tr>
<tr>
<td>29.5–2.6.2008</td>
<td>Germany</td>
<td>Severe storms, flash floods</td>
<td>3</td>
<td>1,300</td>
<td>1,100</td>
</tr>
<tr>
<td>5.–6.2.2008</td>
<td>USA</td>
<td>Tornadoes</td>
<td>50</td>
<td>1,300</td>
<td>955</td>
</tr>
<tr>
<td>11.–18.2.2008</td>
<td>Australia</td>
<td>Floods</td>
<td>2</td>
<td>1,000</td>
<td>890</td>
</tr>
<tr>
<td>9.–11.4.2008</td>
<td>USA</td>
<td>Severe storms, tornadoes</td>
<td>3</td>
<td>1,100</td>
<td>800</td>
</tr>
</tbody>
</table>

Source: Munich Re

M & A activity in the reinsurance sector 2008/2009

- In June 2008, SCOR completed its acquisition of Converium with the squeeze-out and the delisting of its shares in Switzerland and in the United States. SCOR Holding (Switzerland) Ltd. is now a fully owned subsidiary of the SCOR Group19.
- In April 2009, Munich Re has successfully concluded the acquisition of specialty insurance undertaking HSB Group, headquartered in Hartford, Connecticut, from AIG. HSB is a market leader in providing machinery/plant and equipment breakdown insurance, inspection, certification and engineering consulting services. The gross written premium income of HSB Group in 2007 amounted to US$ 904m (based on US-GAAP), the company’s average combined ratio since 2003 has been 73.8%20.
- In February 2009, Hannover Re announced that the acquisition of the ING individual life reinsurance business from the Scottish Re Group has been completed21.

Company Specific Information

According to preliminary calculations in 2008 Munich Re’s consolidated profit amounted to EUR 1.5bn. In reinsurance the combined ratio for property-casualty business amounted to 99.5%, compared with 96.4% in the previous year. Thanks to its pronounced risk management and a diversified investment portfolio Munich Re

20 See Munich Re, Press release, Munich Re concludes purchase of Hartford Steam Boiler, April 1st, 2009.
came through the crisis relatively well so far. As an investor of about EUR 175bn, the group has to absorb large losses on its risk-oriented investments. As a response to the international crisis Munich Re reduced its equity exposure and invested strongly in secure government bonds, but has increasingly also taken selective advantage of good return opportunities especially from corporate bonds\(^\text{22}\). On May 6\(^\text{th}\), 2009\(^\text{23}\) Munich Re announced a first-quarter net profit of EUR 420.0m (2008: EUR 777.0m). The net investment income fell by 18,5% to EUR 1.4bn (2008: EUR 1.7bn), as a result of the significant price losses on the capital markets. In addition Munich Re realised losses as it sold structured bonds to reduce risk and buying corporate bonds instead. The combined rate amounted to 97,3% in the first quarter of 2009, compared with 103,7% in the first quarter 2008. In the light of the turmoil, Munich Re continued to refrain from further share buy-backs.

**Swiss Re** announced on February 5\(^\text{th}\), 2009\(^\text{24}\) that it expects to report a net loss for the full year of approximately EUR 670.3m\(^\text{25}\). The entity’s core business – Property & Casualty and Life & Health performed well. But it suffered severe losses from negative investment results primarily due to mark-to-market losses recognised in income and impairments on its investment portfolio. These losses were only partly counterbalanced by the Group’s hedging program. In February 2009, Swiss Re was downgraded by Standard & Poor’s, Moody’s and A.M. Best. Swiss Re reported on May 7\(^\text{th}\), 2009\(^\text{26}\) a net profit of EUR 99.0m\(^\text{27}\) for the first quarter of 2009. The combined ratio for property-casualty business fell to 90.2% from 96.4% the previous year. In the life & health business the combined ratio improved to 86.9% from 91.3% in the same period of 2008. Swiss Re announced to increase its focus on profitable core business and strengthen its capital position.

**Hannover Re** reported on March 11\(^\text{th}\), 2009\(^\text{28}\) a group net loss of EUR 127.0m. The net investment income fell by a significant 75,2% to EUR 278.5m (EUR 1.1bn), as a result of the turmoil on the financial markets. Hannover Re faced a higher-than-average burden of catastrophe losses (EUR 457.8m for 2008 in comparison to EUR 285.4m in 2007). This figure is equivalent to 10,7% of net premium in non-life reinsurance and hence higher than the calculated expectancy of 10%. The combined ratio thus stood at 95,6% in 2008 (99,7% in 2007). On May 5\(^\text{th}\), 2009\(^\text{29}\) Hannover Re announced an increase in the first-quarter net profit to EUR 216.1m from EUR 151.5m a year earlier. The 43,0% rise in the net profit was owing to the positive one-off effect of EUR 80.2m resulting from the acquisition of the US ING individual life reinsurance portfolio. Due to the favourable developments in non-life reinsurance, a combined ratio of 95,0% was achieved in the first quarter of 2009, compared with 99,5% in the same period in 2008.

On March 4\(^\text{th}\), 2009 **SCOR**\(^\text{30}\) announced a net income of EUR 315.0m for end 2008, supported by liquidity position of EUR 3.7bn. Despite major natural catastrophe

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\(^\text{23}\) See Munich Re, Press release, Munich Re starts the financial year 2009 with a quarterly profit of EUR 420.0m, May 6th, 2009.

\(^\text{24}\) See Swiss Re, News release, Swiss Re announces preliminary and unaudited results, Warren Buffet to invest CHF 3 billion in Swiss Re via Berkshire Hathaway Inc.

\(^\text{25}\) 1 EUR = 1.4919 CHF as of February 5th, 2009, see http://www.bundesbank.de/download/statistik/stat_euref.pdf.

\(^\text{26}\) See Swiss Re, News release, Swiss Re reports net profit of CHF 150m for the first quarter of 2009, May 7th, 2009.

\(^\text{27}\) 1 EUR = 1.5152 CHF as of March 31st, 2009, see http://www.bundesbank.de/download/statistik/stat_euref.pdf.


\(^\text{30}\) See SCOR, Press Release, SCOR records solid results with net income of EUR 315m, supported by an outstanding liquidity position of EUR 3.7bn, March 4th, 2009.
events the combined ratio for the non-life business was at an acceptable level of 98.6%. As a response to the turmoil on the financial markets the group continued to focus on cash and short term investments. This sort of investments more than doubled in comparison to 2007 and amounted up to EUR 3.7bn. SCOR announced on April 30th, 2009 a net income of EUR 93.0m for the first three months, compared with EUR 133.0m in the first quarter 2008. The net combined ratio for property-casualty business stood at 99.4% at the end of the first quarter of 2009 (same period 2008: 98.4%). The natural catastrophe claims made up 9.2 points of the combined ratio, mainly relating to winter storm Klaus. SCOR continued to apply a prudent asset management strategy, at the end of the first quarter 2009 the liquidity position stood at EUR 4.6bn.

**Outlook for 2009 and beyond**

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. Together with restricted refinancing options on the capital markets the significance of reinsurers as a direct capital substitute is growing. In consequence, the 2009 non-life renewals, therefore, showed a change in the market and thus demonstrated the anti-cyclical nature of the reinsurance industry in a difficult and financial context. Reinsurance undertakings were able to optimise their portfolio. On the one hand, the undertakings could negotiate substantial disqualifications, on the other hand, premiums increased in many markets, sometimes even running into double-digit percentages.

**Table 3: Latest major losses of 2009:**

<table>
<thead>
<tr>
<th>Occurred on</th>
<th>Event</th>
<th>Region</th>
<th>Market loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.01.2009</td>
<td>Satellite failure</td>
<td></td>
<td>EUR 123m³⁶</td>
</tr>
<tr>
<td>23.-25.01.2009</td>
<td>Winter storm Klaus</td>
<td>France, Spain</td>
<td>EUR 0.8 – 3.5bn</td>
</tr>
<tr>
<td>05.-13.02.2009</td>
<td>Bushfire</td>
<td>Australia</td>
<td>EUR 402m³⁷</td>
</tr>
<tr>
<td>12.02.2009</td>
<td>Aviation claim</td>
<td>USA</td>
<td>EUR 260m³⁸</td>
</tr>
<tr>
<td>03.03.2009</td>
<td>Collapse of the Cologne city archive</td>
<td>Germany</td>
<td>EUR 1.0bn (estimated)</td>
</tr>
</tbody>
</table>

³² See Munich Re, Press release Munich Re sees opportunities in Asia from financial crisis with growing significance of reinsurance as direct capital substitute, November 25th, 2008.
³⁶ 1 USD = 1.2786 EUR as of 11.03.2009, see http://www.bundesbank.de/statistik/statistik_zweitreihen.php?lang=
de&open=devisen&func=row&tr=WT5636.
³⁷ 1 A$ = 1.9657 EUR as of 11.03.2009, see http://www.bundesbank.de/statistik/statistik_zweitreihen.php?lang=
de&open=devisen&func=row&tr=WT5620.
³⁸ 1 USD = 1.3231 EUR as of 08.04.2009, see http://www.bundesbank.de/statistik/statistik_zweitreihen.php?lang=
de&open=devisen&func=row&tr=WT5636.
<table>
<thead>
<tr>
<th>Occurred on</th>
<th>Event</th>
<th>Region</th>
<th>Market loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>06.04.2009</td>
<td>Earthquake</td>
<td>Italy</td>
<td>EUR 200 – 400m</td>
</tr>
</tbody>
</table>

*Source: Hannover Re Group*
7. 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 countries 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, HU39, 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.

In addition to the usual data reporting and analysis timelines for pensions, which for this years report looks at 2007, CEIOPS decided to supplement this information with additional data for 2008. 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 and schemes40. 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 pension funds sector.

Developments – Major policy reforms

Common trends

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

Developments aimed at increasing membership are reported in five countries; 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

39 This years report also includes data for HU which relates to mandatory DC private pension funds which do not fall under the IORP Directive.
40 It should not therefore be read as a definitive summary of the current conditions but more as an indicator of the situation.
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.

**Country specific developments**

A country-per-country summary of structural changes and developments in 2007 and 2008 follows:

In **BE**, the implementation of the IORP directive resulted in the introduction of a completely new principles-based prudential framework in 2007, setting a minimum level of short-term technical provisions based on the employees' vested rights and a solvency level including long term risk-based buffers based on the investments and financing capabilities of the IORP and the sponsoring employer. Investment rules were abolished and good governance requirements introduced as well as extensive reporting obligations. Finally a new accounting framework was introduced following the regulatory changes.

**BG** saw the ability to establish an IORP come into force only in January 2007. 2008 saw the first occupational pension fund established and managed in Bulgaria which now operates seven pension schemes.

**DE** Pensionskassen and Pensionsfonds have seen a reduction in the minimum vesting age from 30 to 25. There has also been in many schemes an increase in the normal retirement age from 65 to 67, mirroring changes to the German social security system.

**ES** has seen the passing of a new Royal Decree including changes to occupational pension plans. The changes include more clearly defining the role of actuaries and actuarial revisions and also a reduction in the level of reserves for the solvency margin allowing more flexibility. Greater flexibility around investment also now exists allowing investment in instruments such as derivatives. There has also been an increase in disclosure requirements aiming at improving financial education. Also the new legislation reinforce operative and investment controls both for safety purposes.

**FI** highlights that one of the main obstacles to the development of the pensions sector has been the restricted ability to establish DC pension funds. Now the situation is changing because a new act allowing the establishment of DC pension funds came into force in Spring 2009.

**GR** has seen a major reform overseeing the merging of a large number of pension funds. The total pension funds have reduced from 130 to 13. This is expected to result in increased activity in the establishment of pension funds which is likely to be compounded by changing regulation providing tax incentives for contributions. While this is not expected to result in major membership changes in the short term due to the financial crisis, long term increases are expected.

**IT** implemented in 2007 a major effort to increase the coverage and the financing of the private pension system. The so-called tfr (trattamento di fine rapporto), a severance pay equal to about 7% of salary, has been made available for pension funds on an automatic basis, for all private sector workers. Regulation has been made more consistent across all forms of supplementary pensions, reinforcing transparency and information to be given to members, favouring comparability and competition, and concentrating all supervisory tasks with a single, specialized supervisor (COVIP).
While the NL has not seen any new major amendments in legislation, changes including the introduction of the new financial assessment framework have only recently been carried out. The NL has seen risks being transferred to the employees - or an increase in the employee share of a risk. This is evident in the significant drop in the final pay style (from 67% of occupational pension plans in 1998 to 1% in 2008) of DB provision which are being increasingly replaced with average pay schemes (25% to 87% over the same period). This limits the salary risk for IORPs with DB schemes. DC schemes have seen an increase in market share over the last 10 years and now represent 10% of the occupational pension plan market. Cost savings is especially important amongst smaller schemes. A popular strategy in this respect is outsourcing: over two thirds of plans completely outsource asset management and over half the administration of the plan. There has also been a decrease in the number of plans (from 938 in 1998 to 597 in 2008), as many employers and employees have chosen to liquidate their plan and to transfer the provision to another pension fund or insurance company.

The new Insurance Act in 2006 became effective for pension funds in 2008 in NO. This sees a new price and earnings structure, requirements for the division of assets between owners and customers and new rules on profit distribution. These reforms aim at promoting effective operation and a clearer distribution of risk and return between customers and owners.

Significant legislative changes have also taken place in PT during 2006 and 2007, which are expected to have a large effect on the market. Changes have been made in the areas of the law governing state social security pension calculations, regulation of the governance structure, investment rules and the disclosure of information and advertising of unit linked products.

SK has seen the first major changes to the pension system since the implementation of the IORP Directive into law; some changes were also due to the introduction of the Euro. Much greater flexibility around investments exists where previous strict rules applied, now allowing pension funds to differ significantly in their investment strategies. Disclosure has also seen significant improvement with increased transparency regarding investment strategies, expenses and returns allowing a more informed choice by participants. Reporting standards to the supervisor are also much improved where previously it was carried out on a more voluntary basis, SK now sees increased harmonisation across the industry.

In the UK, the powers available to the regulator regarding the issuing of financial support directions and contribution notices have been amended designed to adapt the regulator’s powers to an evolving market seeking to ensure that the available anti-avoidance powers remain appropriate and effective. The new powers aim to ensure the regulator has the appropriate means to prevent any detrimental activity to scheme member’s benefits or increase the risk of a call on the Pension Protection Fund. The regulator has also published guidance on how trustees should go about deciding on mortality assumptions for a DB schemes. Good practice requires assumptions to be evidence based and to be clearly and transparently described. The regulator takes the view that prudence with regard to the base mortality means taking a margin below best estimate rates with regard to future mortality improvement rates. In regards to future improvements prudence means not assuming any rates lower than are reasonable based on the most up-to-date evidence and currently accepted projection methodologies.

The UK Government plans to introduce from 2012 a requirement on all employers to auto-enrol their eligible employees into a pension scheme of a specified quality standard. All of these “qualifying schemes” must offer benefits that are at least equivalent to those from the new Personal Accounts scheme – thereby creating a
statutory minimum level of pension saving. The Personal Accounts scheme will be regulated by The Pensions Regulator who will be given a further statutory objective to maximise compliance with the duties which means it’s the Regulator’s job to ensure that employers comply with their duties. The introduction of auto-enrolment is expected to significantly influence the occupational pensions sector.

Data for 2007

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 15). The size of pension funds is to a large extent related to their maturity and labour market coverage. Countries such as the UK and NL with a relatively long history of occupational pension provision see total assets representing a high asset to GDP ratio. These two countries together make up the vast majority of the overall assets invested in occupational pension funds across Europe.

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. Many of these countries are putting in place reforms to increase occupational pension provision which is especially important with the growing pressures on pay as you go public systems.

Figure 15: Penetration rate of occupational pension funds (assets as % of GDP)

Pension funds have various sources of funding including investment returns, dividends, proceeds of sale etc but the main source is from the contributions payable both by employers and employees. Figure 16a shows the total estimated contributions for 2007 with the main concentration being in DE, NL and the UK. Figure 16b shows the difference in gross contributions payable in 2006 and 2007. For countries with more mature markets there is less likely to be a significant difference in these figures year-on-year (unless a significant reform had taken place) as both employers and members aim to spread the cost of retirement provision over a medium to long term period. Younger and developing markets see a greater difference year-on-year as membership grows and the market matures. DE has seen a large increase in premium...
income following single payments due to two industry undertakings establishing Pensionsfonds in 2007 to which they transferred already ongoing pensions.

Similar logic applies for the benefits payable (Figure 16c) as mature markets are likely to see little change year-on-year (although in the long term the changes may be more profound) while emerging markets may experience more drastic changes.

**Figure 16a: Total gross contributions received**

![Total gross contributions received 2007 (mio €)](chart1)

Source: CEIOPS

**Figure 16b: Growth in gross contributions receivable (% change)**

![Growth in gross contributions receivable (% change)](chart2)

Source: CEIOPS
Figure 16c: Total gross benefits payable (% change)

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Gross Benefits Payable (% Growth between 2006 and 2007)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GR</td>
<td>709.8%</td>
</tr>
<tr>
<td>LV</td>
<td>321.5%</td>
</tr>
<tr>
<td>LU</td>
<td>83.8%</td>
</tr>
<tr>
<td>AT</td>
<td>28.8%</td>
</tr>
<tr>
<td>DE</td>
<td>28.1%</td>
</tr>
<tr>
<td>ES</td>
<td>22.9%</td>
</tr>
<tr>
<td>IT</td>
<td>18.9%</td>
</tr>
<tr>
<td>NL</td>
<td>18.4%</td>
</tr>
<tr>
<td>NO</td>
<td>10.3%</td>
</tr>
<tr>
<td>BE</td>
<td>5.9%</td>
</tr>
<tr>
<td>PT</td>
<td>3.3%</td>
</tr>
<tr>
<td>FI</td>
<td>-0.5%</td>
</tr>
<tr>
<td>IE</td>
<td>-2.5%</td>
</tr>
<tr>
<td>NL</td>
<td>-2.5%</td>
</tr>
<tr>
<td>NO</td>
<td>-2.5%</td>
</tr>
<tr>
<td>BE</td>
<td>0%</td>
</tr>
<tr>
<td>PT</td>
<td>-2.5%</td>
</tr>
<tr>
<td>ES</td>
<td>1.0%</td>
</tr>
<tr>
<td>IE</td>
<td>1.0%</td>
</tr>
<tr>
<td>NL</td>
<td>1.0%</td>
</tr>
<tr>
<td>NO</td>
<td>1.0%</td>
</tr>
<tr>
<td>SI</td>
<td>1.0%</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

Source: CEIOPS

Defined Benefit vs. Defined Contribution schemes

The financial position of the DB occupational pension fund sector is coming under increased pressure, due to negative developments in equity markets, low interest rates and prevailing longevity risk. In a number of member states sponsors are increasingly choosing to replace ‘traditional DB plans’ and transfer a number of risks to members or to set up DC plans instead. This gradual trend will help reducing the vulnerability of sponsors and the pension funds sector as a whole to the funding risks traditionally related to DB plans. On the other hand the shift to DC plans transfers a number of risks to individual members, often requiring them to make difficult decisions such as investment choices and making information to members and financial education crucial issues, especially if there is an absence of sensible default options. Overall, there is a residual risk that unless suitable DC plans are in place, this movement might result in smaller retirement income than when provided by DB plans.

Figure 17 shows that, considering aggregated data at EU level, a large proportion of contributions is still being paid into DB schemes. Due to the pressures on DB schemes substantial increases in contributions into new DC plans can be expected in future years. This could be especially the case for those countries that currently still largely operate DB plans (BE, DE, FI, IE, NL, NO, UK) as well as greater contributions being seen in developing markets.

Figure 17: Allocation of contributions between DB, DC and Hybrid schemes
Asset allocation

Figures 18a and 18b show the allocation of assets for DB and DC schemes and shows significant variation across countries. One could expect that pension funds allocation might shift away from equities, as a market downturn such as the one seen in 2000 and more recently in 2008 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 are 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.

Figure 18a: Allocation of assets for DC schemes

Source: CEIOPS

Figure 18b: Allocation of assets for DB schemes

Source: CEIOPS
Average funding levels

Countries that report results for 2006 and 2007 (see figure 19) point to an improvement in financial strength and funding level for DB IORPs. This can be mainly explained by positive developments on the stock markets in 2006 and the main part of 2007. Also, for countries where schemes are not funded to the full level required by the national law, deficit contributions are being paid by sponsors aimed at bringing schemes up to the required level in their national jurisdiction.

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 countries 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. Countries 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 countries 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 19 in isolation without a full appreciation of all the elements involved including the security mechanisms available.

Figure 19: Average funding levels for 2006-2007

Source: CEIOPS

41 Funding level indicates the degree to which the provision for pension liabilities is covered by the assets. For LU the figures represent the average funding level for all schemes including DB, DC and Hybrid.
Data for 2008 and the impact of the financial 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 severe strain. IORPs were also hit as investors in structured credit products.

Figures 20a and 20b give an estimate of the rate of return on assets for 2007 and 2008 for DB and DC schemes. Again, please note that 2008 data is preliminary and often based on partial samples of national pension markets while 2007 data is based on a more complete sample.

Figure 20a: Rate of return on assets for DB schemes
Source: CEIOPS (estimated data*)

* For figures 20a-22c, 2008 data is preliminary and based on partial samples of national pension markets while 2007 data is based on a more complete sample.

Figure 20b: Rate of return on assets for DC schemes
The reaction of pension funds to the downturn

As would be expected the financial turmoil has reduced the funding levels for DB schemes across Europe, in some countries funding is below 100% which is allowed for a limited time by the IORP Directive as long as a concrete and realisable recovery plan is in place. Data is however very limited at this time, Figure 21 shows an estimated position for 2007 and 2008 of the funding level for DB schemes. Again it should be remembered that solvency and overall security of the benefits for members cannot be understood by viewing these figures in isolation due to differing valuation methods and assumptions including the treatment of protection against inflation and the security mechanisms available (see also the text accompanying figure 19).

Figure 21: Funding levels for DB schemes
A significant proportion of responding countries 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 ES, SK, PT, PO, NO, NL, LV, DE and BG.

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 countries 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 countries. 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 countries 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 countries 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 countries.

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% equity, 70% 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 countries 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 22a, 22b and 22c give an indication of the level of exposure to equities for IORPs with DB, DC and Hybrid schemes.

**Figure 22a: Equity exposure DB schemes**

![DB Equity Exposure](image)

Source: CEIOPS (estimated data*)

**Figure 22b: Equity exposure for DC schemes**

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The reaction of supervisors to the downturn

Because the nature of pension funds varies significantly across the EEA in terms of the role they play and the nature of their set up it would be reasonable to expect a variation in the reaction of supervisors to differ also. Nevertheless, there are many
similarities in the actions taken by supervisors and common lines taken in response to the crisis.

Exposure to so called “toxic assets” or with counterparties that are in difficulty has not been reported as being a major concern for pension funds. Almost all countries have reported increased contact between the supervisor and IORPs, often a selection of the largest funds filtering by size or risk (UK, IT). Some countries have requested the completion of specific exposure templates relating to high profile counterparties in difficulty, namely Lehman Brothers, AIG and the Madoff scandal (ES, PT, PO, NO, FI, IT, DE). The UK reports that while not requiring specific quantitative templates to be completed, contact with larger IORPs suggest a relatively limited direct exposure to so called ‘toxic’ assets and limited involvement in derivative trades with counterparties that are in difficulty. While a few individual pension funds may have higher levels of exposure it is not believed the issue is systemic. One country (LU) reported zero exposure to these assets by nature of the investment laws in place. The new IORP in BG is subject to daily supervision of investments and also provides monthly and quarterly reports and there is zero exposure to so called “toxic assets”. Significantly, no countries reported exposures in this area as being material.

A greater focus on the pension funds deemed by the supervisor as carrying a higher risk is also being seen in ES where insurance inspectors are taking an interest. PT also confirms a closer monitoring of riskier IORPs. The UK adopts a risk based approach and has had greater specific contact with IORPs filtered by size and risk. DE regularly uses a risk matrix to classify the risks relating to all supervised entities and employs this to create a supervisory planning schedule for the upcoming year. In IT the supervisory authority has asked funds to double-check their compliance to the diversification principle.

An increased reporting requirement to supervisors has been implemented in a few countries. ES require quarterly reporting instead of annually. NO has required additional stress tests for the larger pension funds as well as all pension funds needing to report their latest stress tests to supervisors along with an evaluation of their current financial position. DE also requires forecasting, quarterly stress testing and additionally has increased reporting requirements for risk, solvency, liquidity and liability coverage for major IORPs. This is aimed at allowing an improved ability of the supervisor to track the developments of the sector and to identify potential risks as soon as possible.

A number of countries have reported on the flexibilities within the current funding framework and that they remain fit for purpose even in light of the current financial turmoil. While supervisors are mindful of the situation, no special reactions have been needed as sufficient flexibilities are already built in and hasty decisions in light of current conditions are explicitly discouraged.

NL has advised pension funds to take time to analyse their own current situation. Current volatility hampers a proper assessment of the measures to be taken and pension funds have been given an extended time frame for submitting recovery plans. PT highlights that in order to defend and promote the confidence in the markets and regulation no significant changes have been or should be introduced to the regulatory framework. Instead the current framework in PT contains the necessary flexibility, namely in the establishment of recovery plans for pension funds, to work their way through the crisis. GR, LV and LU also take the view that the crisis does not require specific emergency reactions or regulatory changes. In IT the supervisor has allowed a greater flexibility in the application of some quantitative limits.

In the UK the messages from the regulator highlight that trustees need to remain vigilant and to keep the position of their pension funds under review. The funding framework in the UK and the regulator’s current codes and guidance cover the
relevant issues and allow sufficient flexibility for trustees. The regulator has significantly increased communications acting to ensure all parties understand how the system can operate in light of the new challenges, and issued a public statement to trustees setting out its general position in relation to current market conditions. All parties in the pensions fund should continue to focus on making sound decisions in the long term interests of scheme members recognising that pension schemes are long-term undertakings. Current economic conditions however should be reflected in new recovery plans in terms of what is reasonably affordable for sponsors. The UK has also set out its position to employers again highlighting the flexibilities in the system and the role the employer should take. While scheme deficits in the UK are a legally enforceable debt on employers, there is no reason why a pension fund deficit should push an otherwise viable employer into insolvency. The regulator has reacted by reassuring the industry that it will continue to apply the flexibilities in the scheme funding system pragmatically, looking for outcomes in the best interests of the scheme and sponsor.

**Improved disclosure** is also seen as an essential reaction to the crisis and promoting key messages through the industry. SK has increased focus on financial education and also targeted disclosure requirements while the UK has also tackled this issue through public statements issued to pension fund trustees and also sponsors. The UK has asked trustees to give careful consideration to member communications ensuring that members are fully informed allowing them to make the correct decisions in their circumstances. In IT the supervisory authority has made clear that pension fund members have the option to defer annuitisation after retirement, in order to wait for a market upturn that would allow the value of their pension assets to recover, and has asked pension funds to inform members of this option.

**Main risks**

Members were also asked to comment on what they saw as the main risks that are deserving of attention in their jurisdictions.

**Table 4: Main risks**

<table>
<thead>
<tr>
<th>Risk</th>
<th>Number of Member States</th>
<th>Member States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>12</td>
<td>AT, BE, IT, DE, FI, GR, LV, NO, NL, PT, SI, UK</td>
</tr>
<tr>
<td>Interest rate/inflation</td>
<td>10</td>
<td>AT, BE, GR, DE, NO, PT, ES, SI, UK, NL</td>
</tr>
<tr>
<td>Longevity</td>
<td>8</td>
<td>GR, DE, NO, PT, ES, SI, UK, NL</td>
</tr>
<tr>
<td>Consumer Confidence</td>
<td>5</td>
<td>AT, GR, IT, LV, PT</td>
</tr>
<tr>
<td>Tax reform</td>
<td>3</td>
<td>GR, LV, ES</td>
</tr>
<tr>
<td>Accounting changes</td>
<td>1</td>
<td>GR</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>IT, SI, UK</td>
</tr>
</tbody>
</table>
Unsurprisingly, the vast majority of reporting countries identify equity market risk and interest rate risk as two of the most important risks facing pension funds. The concern for equity market risk is spread over many countries and affects both DB and DC schemes.

SI also identified the underdevelopment of long term investment markets as a key risk. The SI investment market is underdeveloped in this area as a consequence the volume of investment in European securities is growing limiting investment in the SI economy. The UK highlights the impact of the economic downturn on sponsor solvency as one of the main risks for pension funds in the UK. IT also notes that the economic downturn is making developments in the private pensions area more difficult, as fewer resources are available for contributing to pension funds.

It is not possible to draw far reaching conclusions at this stage and the above is not intended to give a definitive explanation of the position for 2008, but rather a flavour of the effect of the crisis on pension funds and the response of supervisors. There have been a number of common reactions to the crisis as identified above. A shared message from supervisors is that it is essential that IORPs do not over-react in the face of the downturn, but should ensure they are active and alert to potential changes in the funding level of the IORP and also health of the sponsor. The flexibility in the current system and making use of the available tools, such as recovery plans, are being used. In DC-based systems, better disclosure to members and an emphasis on financial education and awareness is gaining increased attention, possibly together with some reconsideration of the design of DC plans, in order to limit risks for members close to retirement and introduce life-cycle mechanisms. Closer scrutiny by supervisors is a common feature and while countries may have modified their approach within the flexibilities of their frameworks, the current regime is seen by many as being flexible enough to cope.
Annex 1: Country abbreviations

<table>
<thead>
<tr>
<th>Country Code</th>
<th>Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>Austria</td>
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<tr>
<td>BE</td>
<td>Belgium</td>
</tr>
<tr>
<td>BG</td>
<td>Bulgaria</td>
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<tr>
<td>CY</td>
<td>Cyprus</td>
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<td>CZ</td>
<td>Czech Republic</td>
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<tr>
<td>DE</td>
<td>Germany</td>
</tr>
<tr>
<td>DK</td>
<td>Denmark</td>
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<tr>
<td>EE</td>
<td>Estonia</td>
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<tr>
<td>ES</td>
<td>Spain</td>
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<td>FI</td>
<td>Finland</td>
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<td>FR</td>
<td>France</td>
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<tr>
<td>GR</td>
<td>Greece</td>
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<td>Ireland</td>
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<td>IS</td>
<td>Iceland</td>
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<td>IT</td>
<td>Italy</td>
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<td>LI</td>
<td>Liechtenstein</td>
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<td>LT</td>
<td>Lithuania</td>
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<tr>
<td>LU</td>
<td>Luxembourg</td>
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<tr>
<td>LV</td>
<td>Latvia</td>
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<td>Malta</td>
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<td>NL</td>
<td>Netherlands</td>
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<tr>
<td>NO</td>
<td>Norway</td>
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<tr>
<td>PL</td>
<td>Poland</td>
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<tr>
<td>PT</td>
<td>Portugal</td>
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<tr>
<td>RO</td>
<td>Romania</td>
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<tr>
<td>SE</td>
<td>Sweden</td>
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<tr>
<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 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. 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 Undertakings covered by the Austrian “Pensionskassen Act”. The Pillar II 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.

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 Finanstilsynet 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% 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 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.