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Financial Stability Report 2011

Second half-year report

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Introduction

EIOPA's Financial Stability Committee (FSC) has updated its report on the financial stability of the insurance and occupational pension fund sectors in the EU/EEA. The current report covers developments in financial markets, the macroeconomic environment, and the insurance, reinsurance and occupational pension fund markets as of 7 December 2011 unless otherwise indicated.

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Summary of main issues and conclusions

1. Overall comments

Macroeconomic environment has rapidly deteriorated

EIOPA's Financial Stability Report for the first six months of 2011 already highlighted the increasing risk stemming from the sovereign debt crisis in the Eurozone. This issue is now negatively affecting the European insurance sector not only by declining assets values, but also by reduced demand for insurance as economic growth prospects deteriorate.

Unresolved sovereign debt crisis

The recovery of financial markets experienced during 2010, which positively impacted the balance sheets of European (re)insurers, was short-lived and economic imbalances and financial market turmoil resulting in a widening of credit spreads and volatile share prices have re-emerged. The collective European political system and regulatory bodies have been, and are still, seeking permanent and long-lasting solutions to calm financial markets, in an effort to foster an environment that facilitates long-term economic growth. Despite the heightened political activity, in Europe and internationally, the sovereign debt crisis continues to worsen, and now threatens to limit the capital-market refinancing abilities of an increasing number of European sovereigns. The recent attempts by EU leaders to stem the crisis have not convinced financial markets.

Against this background, it is not surprising that financial and economic data have deteriorated further in the second half of 2011 compared with an already worsening situation that characterised financial market setting, at the time of the last EIOPA Financial Stability Report. Currently, it seems that the only credible response that can abate a devastating unravelling of a full-scale European financial meltdown is a clear and comprehensive policy response that removes all doubts that the European currency area remains intact going forward. Without political clarity the risks faced by the European insurance industry cannot be fully and precisely quantified.

Developments in the real economy provides challenges for the insurance and occupational pension sector

If policy responses remain unconvincing to financial market participants, the European insurance and occupational pension sectors could be severely and adversely affected by the resulting financial and economic reality, resulting in solvency problems of insurers where the sovereign debt crisis negatively impacts balance sheets. No insurance company is shielded from the developments in the real economy, and even with a political resolution to the current crisis, the industry will face challenging headwinds cast by the recessionary economic tendencies observed in most of Europe today. It is not only financial market data and political uncertainty that cast a dark shadow on the near to medium term outlook for the European insurance and occupational pension sectors. Also the economic assessment provided by Insurance Supervisors highlight these uncertainties. In particular, supervisors judge sovereign credit risk; equity risk; and the economic cycle to be the most severe challenges for the European insurance industry over the next twelve months.

Against this background, EIOPA concludes that sovereign risk and the lack of a definite and comprehensive political response to the sovereign crisis, are the main sources of risk that can jeopardise the financial stability of the European insurance and occupational pension sectors going into 2012. EIOPA therefore considers that the risks described in its first half-yearly report 2011 have not changed to the better, rather they have deteriorated further, and risks to Insurance and Occupational Pensions are at high levels.

On a positive note, the financial position of the insurance sector has, as measured on average, remained resilient during 2010. For example, the solvency ratio for the sector is measured to be 309%. However, this average figure does naturally not represent the healthiness of each and every insurance undertaking, and there is reason to highlight pockets of concerns with respect to both the weaker capitalised companies and the undertakings with asset holdings that can have been adversely affected during 2011.

Low interest rate stress test

Following the EIOPA 2011 core stress test exercise, a satellite exercise was launched to analyse the risks that European insurers would face in a scenario where interest rates would remain low for a prolonged period of time. The results are summarised in the main text below. In summary, this stress test exercise shows that between 5% and 10% of the companies included in the sample would face severe problems in the sense that their MCR solvency ratio would fall below 100%. In addition, following the imposed interest rate stresses, an increased number of companies would observe a deteriorating capital position with solvency rates falling only slightly above the 100% mark, whereby they potentially would become vulnerable to other external shocks. Recapitalisation of the companies that fail this satellite stress test amounts to EUR 2.0 bn and EUR 6.0 bn, depending on the tested scenario.

Comments on the Insurance sector

Compared to 2009 the <u>premiums</u> growth trend has slowed in 2010, in particular in life than in non-life business. The <u>combined ratio</u> of claims and operating expenses over premiums (all net) and the loss ratio came down slightly, which together helped improving the solvency positions of insurance undertakings by some 2%.

The year 2010, which was characterised by significant natural catastrophes, left the <u>reinsurance</u> industry with above average loss claims.

At the current juncture, the insurance industry, seen as a whole, faces several challenges going forward, some of which are judged to be increasing over the near to medium term. Most predominant risk factors are: sovereign debt risk, equity risk, the risk of a further downturn in the economic environment, along with relevant regulatory and reporting changes.

The risk of insufficient liquidity is also acknowledged across the life insurance industry, especially by undertakings where catastrophic events, or higher than expected policy lapses, would require an unexpected high amount of invested assets to be liquidated at a relatively short notice. Liquidity risk can hurt life insurers in more than one way. Loss of confidence, or a major catastrophic event, have the potential of creating a "run" on individual institutions, akin to "runs" known from the bank sector. Competition from other industries and markets, e.g. high yield investment vehicles and competition from bank deposits, may also cause large lapses for the life insurance undertakings. Finally, contagion from banks through "liquidity swaps" and similar transactions represent another way through which liquidity risk may negatively affect life insurers.

Comments on the Occupational Pension Fund sector

Membership of <u>Institutions for Occupational Retirement Provisions (IORPs)</u> is currently concentrated mainly in a few Member States, but continues to grow in importance across Europe; in some Member States reforms are in place to further this growth in the future. A trend is observed towards defined contribution schemes, which leave sponsors less vulnerable to market downturns as risks are borne mainly by members and beneficiaries.

Data for 2010 provided by supervisors on a best effort basis, document a positive evolution in the <u>funding positions</u> of IORPs, on average. While funding levels have improved, there still exists a great deal of uncertainty in the financial markets, and the current low interest rate environment also creates problems in the <u>Defined Benefit (DB)</u> and <u>Defined Contribution</u> (DC) sector. The financial turmoil have not affected the European occupational pension sector as severely as some other financial sectors; this is likely due to the long-term nature of the sector's liabilities, which affords some protection in this respect. However, the crisis has so far hit pension funds primarily in their role as institutional investors, and it has had a significant impact on consumer confidence.

The funding ratios of the DB occupational pension fund sector are improving, but remain below the levels observed in 2007. It is observed that in most countries it has not been necessary to increase contribution rates, or to cut benefits, while in a few countries, some pension funds did need to increase the capital/contributions required from sponsors, or to extend funding periods. The financial turmoil directly affected the portfolio of DC members, with the greatest impact being on those close to retirement and/or heavily invested in equities. However, many DC systems are relatively young, so the numbers of older workers affected is small in absolute as well as in relative (to DB schemes) terms.

In <u>response to the continuing financial turmoil</u>, supervisory authorities have focused on the flexibilities within the current framework facilitated by the IORP Directive and the different security mechanisms available. No major changes in the supervisory approaches have been reported or are expected. However some EU governments have started to consider how to improve the management of IORPs, and to reduce risks affecting members. In DC systems, a careful plan design, such as suitable default and life-cycle options, and the promotion of financial education initiatives are increasingly considered to be crucial in order to empower people to minimise effects of financial downturns as well as being able to make sensible and informed choices regarding their pension provisions in the future.

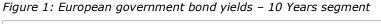
The European Commission has announced that they are reviewing the IORP Directive with the aim of facilitating cross-border activity and developing risk-based regulation. As part of this review EIOPA has been asked to provide advice on a number of areas.

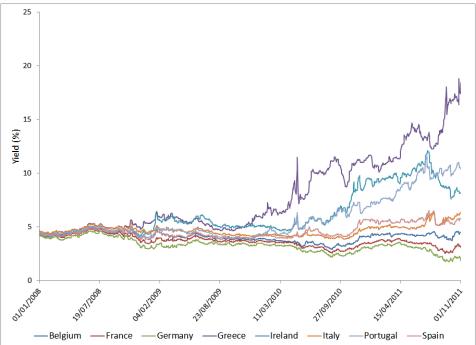
2. Recent Developments

FINANCIAL MARKET ASSESSMENT AND DEVELOPMENTS

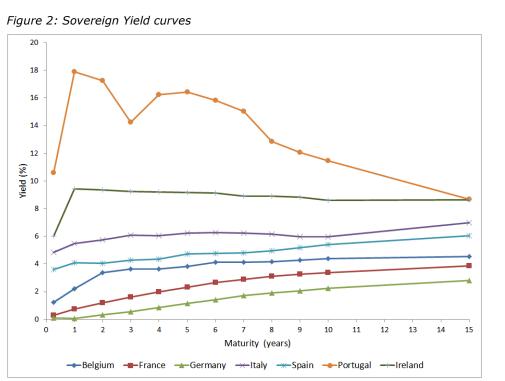
Concerns over government debt levels, and what appear to be significantly uneven short to medium term economic growth perspectives for a growing number of European countries continue to dominate financial market sentiments. At the current juncture, financial markets participants seem not to be convinced by the implemented and announced actions by individual European governments, and the collective political system of Europe, aiming at ensuring sustainable fiscal adjustments and restoring economic growth.

As a result of the current ambiguous economic and financial market situation, developments in asset prices have been somewhat unaccommodating: for example, European government bond yields have diverged further during the recent months and are showing increasing trends. Figure 1 shows the 10 years government yield curve segment for a selected number of European countries, while Figure 2 show the government yield curves observed by end October 2011.





Source: Bloomberg

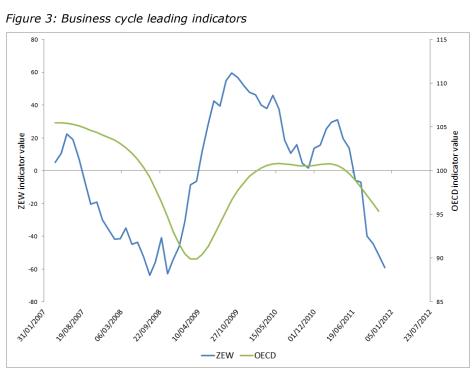


Source: Bloomberg

As a summary gauge on the status of the current macroeconomic environment, Figure 3 shows the evolution of two European business cycle indicators, and Figure 4 shows the 5Y Euro area inflation swap rate. The two business cycle indicators show that while a rebound in economic activity was observed during 2010, and the first part of 2011, both indicators are now trending downwards. This signifies the business environment and economic activity challenges over the coming six months. At the same time, Figure 4 indicates that inflation expectations are well anchored at around 2%, at a five year horizon, although a slightly upward moving trend is observed in the most recent data.¹

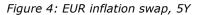
Note: The figure shows selected yield curves, observed December 2011.

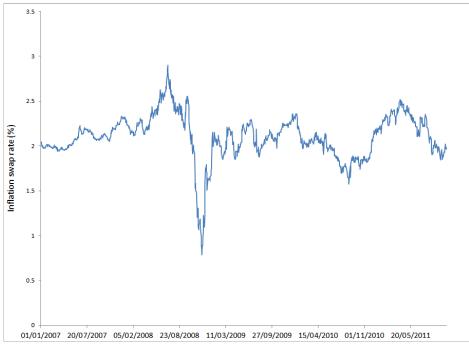
¹ It is recalled that the inflation swap comprises also risk premia and is therefore a noisy measure of the true inflation expectation. It is therefore possible, that the observed upward trend is caused by an increase in inflation risk premia, rather than actually in an increased inflation expectation.



Source: Bloomberg

Note: The figure shows leading indicators for the economic cycle six month ahead. Two indicators are depicted. One derives from the ZEW and the other from OECD. The former is plotted in green on the left-hand-axis, and the latter is plotted in blue on the right-hand-axis.



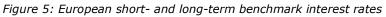


Source: Bloomberg

Note: The figure shows the evolution of the rate of the 5 year EUR inflation swap. It is noted that the swap rate is not adjusted for any inflation or other risk premia.

It is difficult to quantify and assess the overall detrimental impact that the on-going macroeconomic and financial market crisis will have on the European Insurance and Occupational pension industries. However, it is clear that the main risks for the sectors currently originate from Sovereign and banking risks, and follows from the potential of adverse market price evolutions on asset holdings. Adding to this picture are also global market uncertainties, in particular the fiscal situation of the US government, the downgrade of US to AA+ by S&P on 5 August 2011, the credit rating of European sovereigns, and the recent volatility observed on financial and commodity markets.

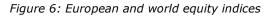
In the autumn of 2008 an episode of falling Euro benchmark interest rates Interest was initiated. After hitting a level of 0.6% in August 2010, the 3 months rates rate subsequently exhibited an increasing trend that, however, seems to have come to an end during the past months (Figure 5). While the Euro benchmark 10Y rate displayed a upward moving trend in the first part of 2011, rising from around 2.5% to approximately 3.5%, recent months have again seen the 10Y benchmark rate decline to levels in the neighbourhood of 2%. Clearly, Long-term rates are of critical importance to life insurers and pension funds, as these institutions typically have long-run obligations to policyholders and pensioners that become more expensive in today's terms when rates are low. Therefore, the financial position of these institutions typically suffers under such circumstances, in particular where the duration of liabilities exceeds the duration of the corresponding assets. For life insurers, this problem can be compounded if guaranteed minimal rates of return have been offered to policyholders. However, a too rapid increase in interest rates may also destabilise some life insurers as their contracts may become uncompetitive as compared to alternative investments. Meanwhile, short term money market rates have steadily increased over the last months, reflecting recent policy rate increases by the European Central Bank. Although money market rates are of less direct relevance to insurers and pension funds than long-term rates, they may still negatively impact their balance sheet if they pay this rate to counterparties as part of the variable leg of swap contracts.





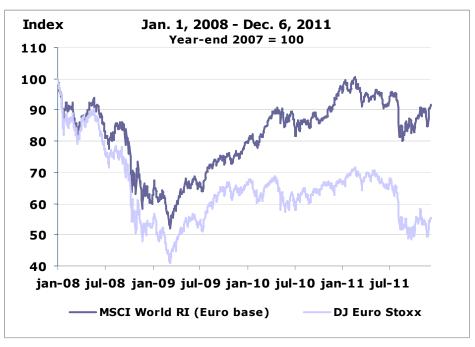
EUR003M Index (EURIBOR 3 month).

The soft rebound in equity prices that seemed to start during 2009 may have come to an end during the last couple of months. The high level of uncertainty and the somewhat negative market sentiment, caused by concerns over the government debt crisis that the looming negative economic growth prospects, seem to affect European stock markets (Figure 6). European equity levels are still substantially below levels witnessed before the 2008 financial crisis and are again exhibiting a downward sloping trend. The ground gained by equity indices during the recent rally has by now largely been lost. Naturally, this evolution can put pressure on the capital position of Insurance companies, and occupational pension funds, to the extent that they hold sizeable equity portfolios.



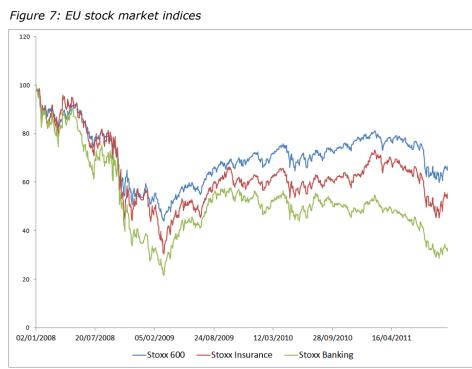
Share

prices



Source: Datastream

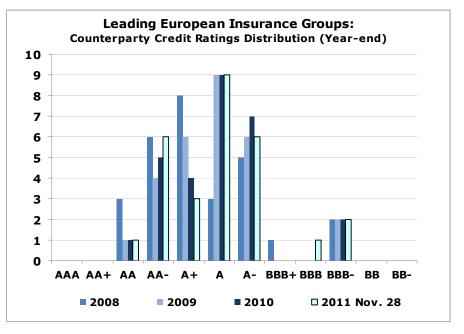
In line with general market sentiment, equity prices of listed insurance undertakings also decreased over the last few months (Figure 7). Especially for life insurers, the recent decrease can be ascribed to their sizeable holdings of market risky assets. A rationale behind the cyclical movement of life insurers' share prices is that their business is more cyclical in nature compared to for example the reinsurance sector.



Source: Bloomberg. Data covers 2008 until December 2011.

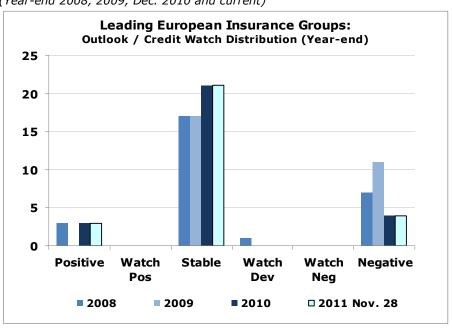
Rating outlook The financial strength ratings of European insurers experienced more downgrades than upgrades in 2008 and 2009 (Figure 8). Since the end of 2009, however, the rating outlook for large insurers has been improving. The number of insurers on negative outlook has decreased (Figure 9). The actual migration of ratings during the course of 2011, however, is somewhat heterogeneous: both up- and downgrades are observed. Recent rating actions taken by Standard & Poor's on sovereigns in the Eurozone are also affecting the ratings of a number of larger European insurance groups, which were put on credit with negative outlook following the ration actions on sovereigns.

> *Figure 8: Development of leading European insurance groups' financial strength: Credit ratings distribution (Year-end 2008, 2009, 2010 and current)*



Source: Standard & Poor's

Figure 9: Development of European insurance ratings outlook distribution (Year-end 2008, 2009, Dec. 2010 and current)



Source: Standard & Poor's

Figure 10: Moody's ratings



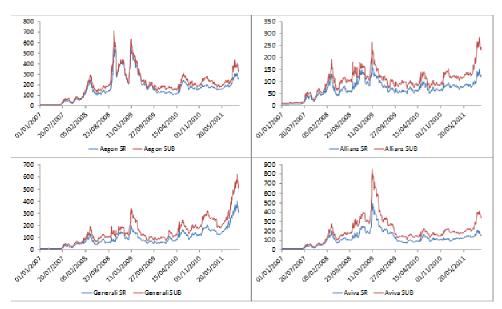
Source: Moody's

Note: The figure shows weekly observations on Moody's long term rating (light grey line) and implied ratings extracted from equity data (blue line) and CDS data (orange line). The average ratings of a portfolio of large European insurance and re-insurance companies are depicted based on data covering the period from January 2008 to December 2011.

CDS The sharp widening of Credit Default Swap (CDS) spreads for European insurance groups during the market turbulence of 2008 and the start of 2009 probably reflected concerns about the sustainability of the global financial system. Since March 2009, credit spreads have come down substantially although recently, for a broad set of insurance companies, CDS spreads are rising again (see Figure 11 and

Figure 12). In addition, the spread between the CDS of senior and sub ordinated debt seem to have increased during the last couple of months. These evolutions at the level of individual insurance companies coincide with the observed increase in sovereign CDS spreads (see Figure 13).²

Figure 11: Development of 5-years CDS spreads European Insurance Companies for senior and sub ordinated debt



Source: Bloomberg

² CDS spreads are averages of price quotes from leading CDS market makers. The CDS quotes show trading intentions and it is not necessarily the case that deals are actually struck at the used quotations. As with all OTC derivatives, these spreads can be driven by illiquidity.

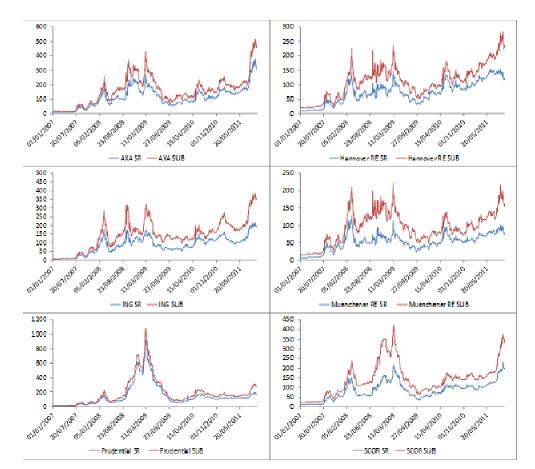
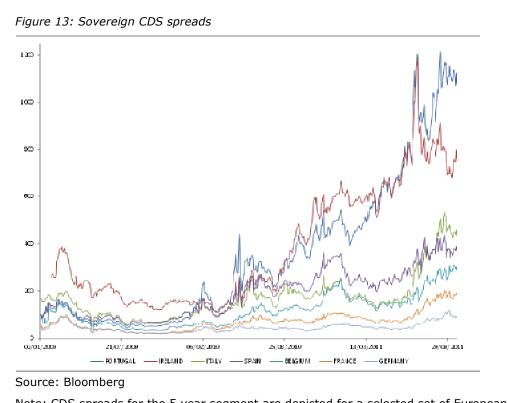


Figure 12: Development of 5-Years CDS spreads European Insurance Companies for senior and sub ordinated debt

Source: Bloomberg



Note: CDS spreads for the 5 year segment are depicted for a selected set of European Union countries. The data covers the period from January 2009 to December 2011.

LEGISLATIVE AND REGULATORY DEVELOPMENTS

A number of legislative and regulatory developments have been reported by Member States. These were either launched during 2010, and the first part of 2011, or before with the effects of these initiatives being observed now.

Some countries have seen structural changes and developments in 2009, 2010, and during the first months of 2011, for example, relating to the establishment of single and fully integrated supervisory authorities, replacing and regrouping the previous existing financial supervisory structures. Such developments are, for example, observed in IE, BE, LT, FR.

Insurance, pension and financial market reforms Also, some reforms of insurance acts were adopted, or are still under way, in several countries. Amendments and new provisions were addressed in particular to the Insurance Business Act (SE, CZ, IS and PL), to the pension legislation (MT and FR) and to the Financial Market Supervision (PL). In some countries the adoption of a new insurance act has been accompanied by the implementation of new reinsurance directives (CZ, IS).

Gender ruling Finally, according to the decision by the Court of Justice of the European Union from 1 March 2011, taking the gender of the insured individual into account as a risk factor in insurance contracts constitutes discrimination. The rule of unisex premiums and benefits will apply with effect from 21 December 2012. This decision has a considerable impact on the European life insurers as well as pension funds and health insurance, because premiums and benefits are calculated based on the gender of the beneficiaries.³ Companies will be forced to introduce new tariffs.

³ Further clarifications from the Commission is expected on this issue, for example, whether it would apply only to new contracts or whether it would have a broader scope.

Additional detailed information on legislative initiatives for the European Insurance are provided in Annex 2.

3. Developments in the European insurance sector

Data sources Based on the reporting of key figures by EIOPA Members in autumn 2011 the following section describes the main developments in the European insurance sector.

MARKET TRENDS

Insurance penetration The ratio of gross premiums to gross domestic product, an indicator of insurance penetration, is of a very different size across Member States showing only gradual change over time in total. For example in IE the penetration ratio is one of the highest behind LI, about 18 percent in total due to significant reinsurance business. In the non-life business penetration is highest in NL (due to the privatization of health insurance in 2006).

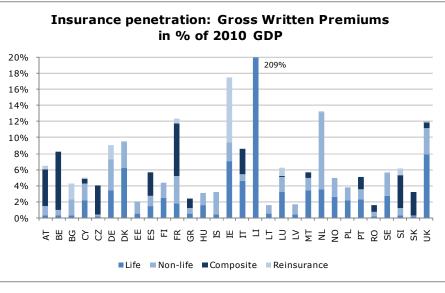
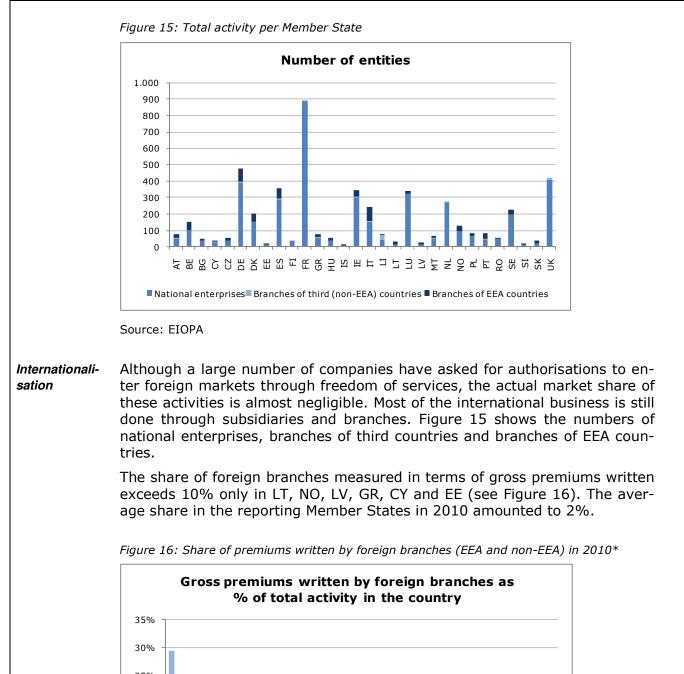


Figure 14: Insurance penetration: Gross Written Premiums in percentage of GDP (2010)

Source: EIOPA

Number of enterprises

er of Total insurance activity, when calculated as the number of national enterrises prises and branches of non-EEA and of EEA countries, decreased in some Member States like PT, BG and DE while in other Member States the number has remained broadly at the same level for several years.



25% 20%

0% い い い ぶ ひ 近 小 三 ひ い ぶ ひ 三 丁 つ い ぶ ひ 三 丁 目 ら ひ Ratio Average

*Defined as premiums written by foreign branches compared to total premiums written by enterprises active in a jurisdiction. The data for the premiums written by foreign branches is based on preliminary figures.

Source: EIOPA

15%

10%

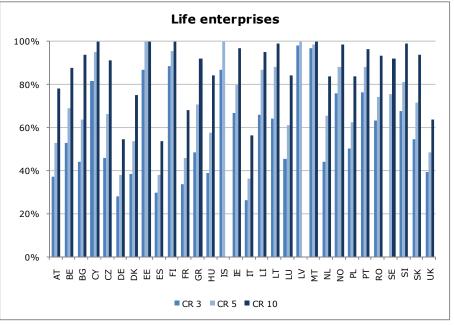
5%

Degree of concentration

Some Member States reported a decreased concentration in 2010 (measured as gross premiums written by the three or five largest companies as a % of total gross written premiums in the domestic sector; CR3 and CR5, respectively) – however in most Member States the degree of concentration was rather stable.

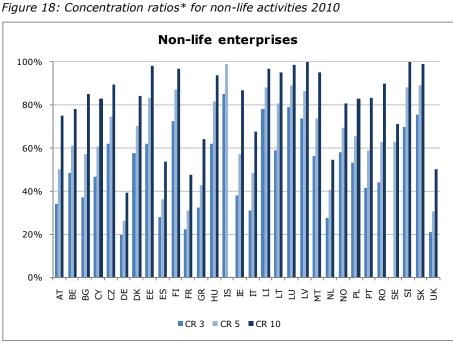
Concentration is higher in life business than in non-life business. While the life business is most concentrated (measured by CR5) in EE, IS, LV, MT, FI and CY, in the non-life business the highest concentration ratios have been observed in IS, SK, LU, SI, LI, FI and LV. In the larger Member States DE, ES, FR, IT, NL, PL and UK, the sectors tend to be more fragmented. Figure 17 and Figure 18 illustrate the concentration across Member States for life and non-life business (excluding business of composite undertakings).

Figure 17: Concentration ratios* for life activities 2010



 \ast Measured by gross written premiums of the largest 3, 5 and 10 companies as a % of total gross written premiums in the domestic sector.

Source: EIOPA



* Measured by gross written premiums of the largest 3, 5 and 10 companies as a % of total gross written premiums in the domestic sector.

Source: EIOPA

DEVELOPMENT IN PREMIUMS AND CLAIMS

Slow down in premium growth grow

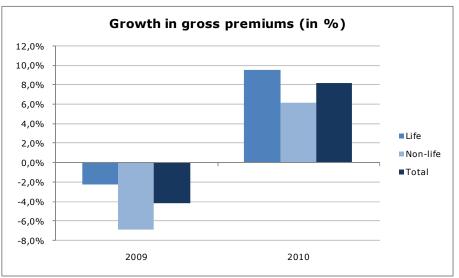


Figure 19: Growth in gross premiums* 2009 and 2010

* For life, gross written premiums. For non-life, gross earned premiums.

Source: EIOPA

However, one third of participating Member States reported a decrease in the total gross premiums written in local currency. Among the countries with a double-digit decline in premiums were UK and SE, but also the Baltic markets.

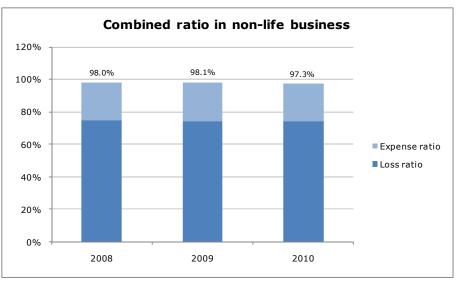
Life Sector In the life sector, developments in the national markets were not uniform, however more than two thirds of the Member States reported an increase in premiums for 2010.

Non-Life In the non-life sector, developments in 2009 across national markets were equally not uniform: More than half of the Member States reported an increase in premiums for 2010, for example in IE where premiums increased by more than 25%. In some countries (LT, LU, LV and FR) the premiums declined by a double-digit percentage rate.

PROFITABILITY IN 2010

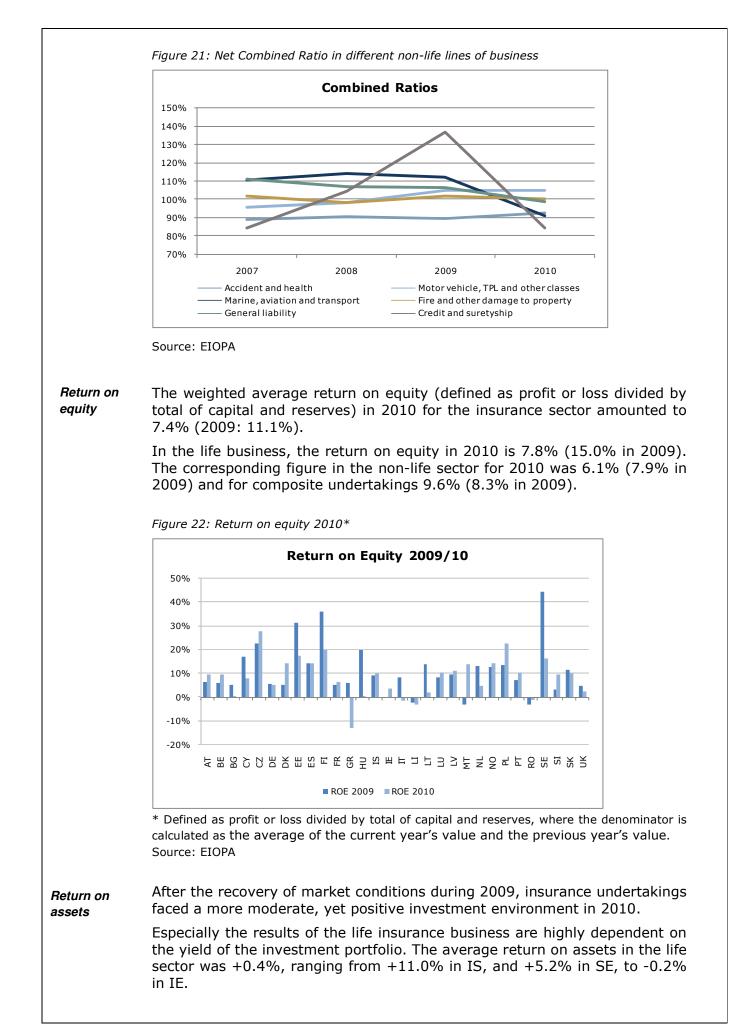
Combined ratio For the European non-life sector, the net combined ratio (defined as claims and operating expenses divided by premiums, net of reinsurance) declined from 98.1% in 2009 to 97.3% in 2010. While loss ratio declined by 0.2%points to 74.4%, expense ratio decreased by 0.6%-points to 22.9%.

Figure 20: Net Combined Ratio*

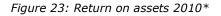


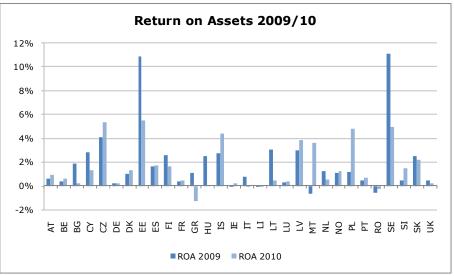
* Defined as claims and operating expenses divided by earned premiums, net of reinsurance. Source: EIOPA

While most non-life lines of business display a stable development of the combined ratio over the last couple of years (e.g. "accident and health" as well as "fire and other damage to property"), other lines of business show more volatility, which is specifically relevant in the credit insurance business where loss rates peaked in 2009. Since the accident and health business however accounts for 36% of total gross written premiums in the non-life sector while credit insurance accounts only for 3%, the overall combined ratio is rather stable.



In the non-life business returns on assets were on average +1.4%, with 24 Member states showing positive returns. The average return on assets for the composite sector amounted to 0.7%, ranging from 7.9% in UK to -5.1% in GR.





* Defined as profit or loss divided by total assets, where the denominator is calculated as the average of the current year's value and the previous year's value. Source: EIOPA

FINANCIAL STRENGTH

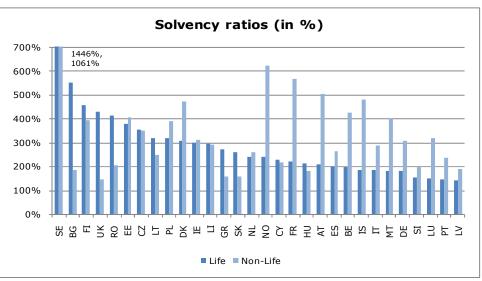
Solvency position

Financial strength of European Insurance undertakings can be expressed by the solvency ratios. In 2010 this measure, on average for the industry, amounted to 309%, compared to 300% in 2009.

In the life sector the aggregate solvency ratio improved slightly last year, reaching a level of 306% at the end of 2010 (compared to 305% at the end of 2009). In the life business the solvency ratio was especially high in SE and BG.

In the non-life sector the corresponding figure was 343% (334% at the end 2009). The solvency ratio was above 600% in two reporting Member States and below 200% in seven other Member States. For the composite sector, the average solvency ratio migrated from 240% in 2009 to 266% in 2010, however, from nine member states contributing to this sample, five show an overall ratio below 200%.

Figure 24: Solvency ratios 2010*



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

INVESTMENTS

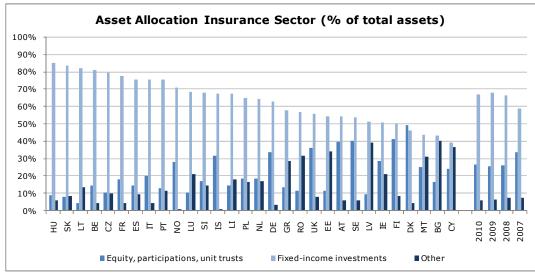
EIOPA monitors the current asset allocation of European insurance companies closely, especially with regard to sovereign and banking exposures.

Overall the insurance sector exhibits a diversified sovereign bond portfolio across EEA countries, Japan, Switzerland and the United States, which accounts for roughly a quarter of total assets. However, investment strategies in many cases exhibit a certain level of home bias.

The exposure towards the banking sector amounts to approximately one fifth of total assets. About one third of this is in secured (collateralised) bonds, which predominantly carry a AAA rating, while bank subordinate debt and equity account for approximately 4% of total assets. The overall real estate exposure accounts for some 15% of total assets (including mortgage loans and covered bonds, which account for more than half of this figure).

Across the sector it is observed that asset allocations exhibit a somewhat higher component of fixed income assets relative to equities; whether this change is a result of deliberate asset allocation decisions or a result of market value changes cannot be determined on the basis of the collected data.

Figure 25: Asset allocation* for 2010



* Investments for the benefit of policyholders who bear the investment risk are excluded. "Fixed income" covers debt securities and other fixed income securities, loans guaranteed by mortgages and other loans. "Equity" covers shares and other variable-yield securities, participating interests, investments in affiliated enterprises and participations in investment pools. Data also includes composite insurance undertakings, but excludes reinsurance undertakings. Source: EIOPA

MARKET DEVELOPMENT

Qualitative In addition to the quantitative answers reported above, members have provided qualitative assessments of market conditions, key aspects of the life and non-life insurance sectors, and the main risks and challenges as they are observed in local markets. A summary of this input, which was generated in 2010, is provided below.

Business activities and risk profile As a consequence of the competitive pressure and financial imbalances, 2010 showed broad efforts of insurance undertakings and groups to adapt their business model and their overall risk profile. The observed actions, of which some or still on-going, was to implement more capital-efficient structures, and revised corporate governance structures through mergers, partnerships, or by entering into new business lines. Insurers attempted to increase market shares by launching new products and by including investment components on traditional life-insurance products and pension-related insurance products. In life insurance growth mainly originated from new products with limited or optional guarantees.

Financial On a sample of 28 responding countries, 70% reported sufficiently capitali*position* sation as of the end of 2010. Just in eight cases reserving needs were detected due to longevity, discounting rate, legal risks, and asset repricing following the financial crisis.

> Solvency and capital positions of undertakings have been monitored constantly during the regular supervisory activities. More than half of the sample reported the necessity in 2010 and the first half of 2011 to put in place additional supervisory measures to prevent or solve solvency strains. These were primarily caused by difficulties in fulfil the minimum guarantee fund (four countries), losses on financial asset, (five countries) underestimation of technical provisions (four countries) or overestimation of receivables or inadequacy of premium rates (two countries). The supervisory actions in these cases consisted in imposing more frequent reporting obligation, supporting off-site activities. Individual cases warranted an immediate increase in capital, supported by further capital projections and recovery plans, an

	increase of the reinsurance cover, as well as placing companies under ad- ministration or compulsory administrative winding up procedures.
	The solvency position of the few non-EEA subsidiaries operating in European domestic markets was considered stable and the conditions appropriate. These entities do not seem to have a high impact on domestic markets.
Interest rate environment	The financial crisis in Europe led undertakings to face new performance challenges in an environment of low interest rate.
	Ten countries noted that the impact of the interest rate environment on companies was limited or minimal, depending , on local GAAP regulation and the matching programs in force as well as on adequate ALM strategies.
	In the remaining cases, persistent low interest rates have had a significant impact on the economic situation (e.g. profitability of the assets) and the risk-taking capability (e.g. revaluation reserves) of the insurance companies but the interest environment did not seem to affect the liabilities side.
	The impact assessment of the interest rate risk profile is based on:
	EIOPA's stress test (satellite) exercise
	 day-to-day supervisory engagement
	 regular monitoring by appointed actuaries, as controlled by the su- pervisory authority
	qualitative/quantitative analysis
	 compliance with guidance issued/legal requirements
	 more frequent financial reporting on the investment portfolio and the assets covering technical provisions.
	As a consequence of the crisis, most of the European insurers lowered the duration of their assets portfolios.
	Although reinvestment risk in the short/medium term is considered low for one third of the surveyed countries and the difference between the dura- tions of assets and liabilities in some cases is still quite high.
Market stress in sovereign debt	Regarding the effect of market stress in sovereign debt, 50% of the coun- tries highlighted that exposures to what is current perceived as being `dis- tressed sovereigns`, are relatively limited, 40% of the respondents reported that their local industries are resilient towards sovereign stresses, despite relative high sovereign bond exposures and that their industry has capital buffers that would sustain most adverse sovereign bond scenarios. In these countries additional supervisory measures have been taken to follow the capital situation of the companies more closely. The remaining countries didn't provide specific information on the impact of market stresses over sovereign debt but highlighted that a close monitoring and assessment on the investment policies and the solvency margin position following the gov- ernment bond market turbulences is carried out.
	Almost all respondents saw no impact of potential rating changes, since ex- ternal ratings do not serve as an eligibility criterion under the current regu- lation.
Changes in national regulation	The major thrust of the regulatory changes reported by two countries centre around crisis measures which have been implemented to allow undertakings to value government bonds at cost (or some form thereof) rather than at market value. Thirteen countries reported minor or no regulatory changes. The rest is assessing the impact of the new prudential requirements to be adopted under the Solvency II framework.

Exposure to credit risk	Low exposures of portfolios to credit risk, in particular through corporate bonds and securitised assets, and low possible impacts are reported by most. Despite of this, four countries have increased supervision on this is- sue by requiring more frequent reporting on investment strategies, on cor- porate and sovereign exposures and by carrying out risk assessment analy- sis and ad hoc stress tests.
<i>Lapse rate developments</i>	The picture emerging from the survey with regard to lapse rate develop- ments is almost homogenous. Just in four cases it was mentioned that lapse rates have decreased, but for almost all the respondents these have re- mained unchanged yet. A slight increase in lapse rates was reported from five countries, while in two cases was it is expected to increase moderately. The risk associated with such increased lapse rates, are being watched care- fully.
Liquidity and funding conditions	No specific vulnerabilities regarding intra-group funding flows were identified and in general the liquidity and the funding conditions seem to be appropri- ate.
	Only four countries reported that subordinated loans and dividend pay-out are the primary source for demand of additional funding in the companies operating in groups. Intra-group funding flows are observed and monitored directly by the supervisors or by external auditors.
Market volatility	A mixed but balanced picture emerges: about 50% of the respondents re- ported that exposure to market volatility in equity is limited and the expo- sure to fixed income and credit spread volatility is also moderated. Others mentioned that Life insurer's exposure to market volatility in equity is high and the impact of the widening of spreads has been material.
	The effects highlighted are a progressive increase of the use of derivative fi- nancial instruments and higher costs of hedging transactions.
	It is considered extremely important by most respondents that timely as- sessment is performed of the exposures and their evolution, of risks to which the undertaking's assets are exposed, as well as of the consequent impact on solvency.
Counterparty risk	No concerns are reported on the counterparty risk regarding reinsurers whose financial position has remained strong in spite of the financial markets turbulence and some severe catastrophic losses taking place recently.
	In one case it was clarified that local insurance undertakings are exposed to counterparty risk through the receivable from intermediaries. A supervisory intervention requested insurance undertakings to reduce their exposures to intermediaries by adjusting their collection policy and collateralising the ex- isting balances.
Contagion risk	Half of the sample reported not to have a significant number of subsidiaries in other financial sectors or considered this risk to be insignificant. One third pointed out that the main sources of contagion risk to the insurance sector are the financial conglomerates, including institutions operating in the bank- ing sector. Indeed, potential channel for spill-over effects are the holdings of financial institutions' bonds by insurers as part of their corporate bond book. In this case problems at the issuing institution affect the valuation of the bonds and thus the credit portfolio of the insurers.
	In general no imminent risks stemming from other sectors (liquidity funding by insurers to banks real estate risk, property risk and risk of non- repayment of premiums debts) are reported to be significantly affecting the insurance undertakings at present.

Monitoring with annual reports on intra-group transactions and common supervision together with the bank supervision authority are carried out by national supervisors. In five cases it was specifically mentioned that direct assessment of contagion risk from subsidiaries operating in other financial sectors is carried out.

An additional consideration is that the risk of contagion between the banking and insurance sectors, might be strengthened with the implementation of Basel III and Solvency II, especially in insurers assets.

Supervisory Risk Assessment for the insurance sector

EIOPA Members and Observers have been asked in September to assess risks and challenges, out of list of 42 items, according to the probability of a materialisation and the impact on the national insurance market. Based on the responses from 28 countries⁴, the following risks and challenges are classified as the most imminent, ranked by the product of the scores for probability and potential impact (see Table 1).

The current sovereign debt crisis, a downturn of the economic cycle⁵ and Main risks regulatory&reporting changes are the risks with highest overall ranking. For all three risks the probability of a materialisation are considered quite substantial, together with a further downward pressure on equity prices, they reach a value of 3 or greater on the scale from 1 (low probability) to 4 (high probability). The potential impact on the insurance sector is expected to be highest for the sovereign risk and for the recession.

INSURANCE (based on 28 replies)	Average probability of risk	Average impact of risk	Development over the last 12 months	Expected development over the next 12 months
(ranking based on probability times impact)	1 = low 2 = medium-low 3 = medium-high 4 = high	1 = low 2 = medium-low 3 = medium-high 4 = high	-2 = cons. decrease +2 = cons. increase	-2 = cons. decrease +2 = cons. increase
Credit risk - Sovereigns	3,1	3,0	1,2	0,2
Economic cycle	3,1	2,9	0,7	0,6
Regulatory & reporting changes	3,2	2,6	0,4	0,7
Equity risk	3,0	2,6	0,8	0,2
Interest rate risk - prolonged period of low interest rates	2,9	2,7	0,3	0,0
Lapse risk	2,6	2,6	0,4	0,5
Credit risk - Corporates and private households	2,4	2,7	0,4	0,3
Premium risk	2,4	2,7	0,4	-0,1
Tax and pension reforms	2,4	2,3	0,6	0,5
Natural catastrophes	2,0	2,6	0,4	-0,1
Interest rate risk - sharp increase	2,0	2,5	0,0	-0,1
Reserve risk	2,0	2,5	0,2	0,2
Longevity risk	2,1	2,3	0,1	0,1
Consumer confidence	2,2	2,1	0,3	0,4
Expense risk	2,2	2,1	0,2	0,2

Table 1: Classification of most imminent risks for the insurance sector

Source: EIOPA

... over the

Over the last twelve months (see Table 2), most of the fifteen risks menpast months tioned above have increased. The highest increases are reported with regard to sovereign risk, equity risk and the downturn of the economic cycle. Also the risk of tax and pension reforms has significantly increased since Autumn 2010.

5 "economic cycle" covers various challenges such as the decline in written business, asset-side risks and the potential rise of fraudulent claims

AT, BE, BG, CY, CZ, DE, EE, ES, FI, FR, GR, HU, IE, IS, IT, LI, LT, LU, LV, MT, NL, NO, PL, PT, SE, SI, SK, UK.

INSURANCE (based on 28 replies)	Development over the last 12 months	
	-2 = cons. decrease +2 = cons. increase	
Credit risk - Sovereigns	1,2	
Equity risk	0,8	
Economic cycle	0,7	
Tax and pension reforms	0,6	
Credit risk - Corporates and private households	0,4	
Premium risk	0,4	
Natural catastrophes	0,4	
Regulatory & reporting changes	0,4	
Lapse risk	0,4	
Inflation	0,4	
Interest rate risk - prolonged period of low interest rates	0,3	
Competition	0,3	

Table 2: Development in risks for the insurance sector over the last 12 months

Source: EIOPA

... for the next For the next twelve months (see Table 3), only some risks are expected to increase significantly, especially Regulatory & Reporting changes as well as the risks of another downturn in the economic cycle (double-dip). Tax and pension reforms and higher lapse rates are also items of concern for national supervisors.

INSURANCE (based on 28 replies)	Expected development over the next 12 months				
	-2 = cons. decrease +2 = cons. increase				
Regulatory & reporting changes	0,7				
Economic cycle	0,6				
Tax and pension reforms	0,5				
Lapse risk	0,5				
Environmental changes (climate)	0,4				
Consumer confidence	0,4				
Staff risk	0,4				
Market funding	0,3				
Uninsurable risks	0,3				
New entrants	0,3				
Credit risk - Corporates and private households	0,3				
Inflation	0,3				

Table 3: Expected risks for the insurance sector over the next 12 months

Source: EIOPA

4. Developments in the European reinsurance sector

GENERAL COMMENT

2011 is being a very difficult year for the reinsurance industry. Several major events already impacted reinsurers, two severe floods in Australia at the end of 2010 and the beginning of 2011, the earthquake in New Zealand in February, the earthquake in Japan followed by a tsunami in March, and finally the tornados in April and May in parts of the US South and Midwest.

MAJOR LOSS EVENTS AT THE BEGINNING OF 2011

Extraordinary events in 2011 will most likely make it the costliest year ever seen for the reinsurance sector. Economic losses for 2011 are currently approximated at USD 265bn, which exceeds the losses of USD 220bn observed in 2005. Insured losses stand at about USD 60bn, which exceeds the 10-year average loss by more than four times.⁶

In February, New Zealand's second largest town, Christchurch, was partly destroyed by a major earthquake. The insured losses following this event could reach more than USD 10bn; already exhausting major parts of the re-insurers' catastrophe loss budgets.⁷ This was followed by several floods and cyclones in Australia.

This event was topped by far by the earthquake and the following devastating tsunami in Japan. Insured claims from recent Asia-Pacific events could

⁶ See

http://www.munichre.com/en/media_relations/press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_07_12_press_releases/2011/2011_press_releases/2011/2011_press_releases/2011/2011_press_releases/2011/2011_press_releases/2011/2011_press_releases/2011/2011_press_releases/2011/2011_press_releases/2011/2011_press_releases/201

⁷ See Handelsblatt, page 36, 7 March 2011.

amount to as much as USD 50bn⁸. The catastrophe in Japan is dealt with in the following section.

Finally, a whole series of tornados went through parts of the South and Midwest of the United States in April and May, killing about 346 people in April alone and also devastating parts of Mississippi, Alabama and other States.⁹

Date	Event	Region	Insured Loss USD bn	Economic Loss USD bn
11.03.2011	Earthquake	Japan	30	210
22.02.2011	Earthquake	New Zealand	>10	20
April 2011	Tornado series	USA	5.05	7.5
Dec 2010 / Jan 2011	Floods	Australia	2.55	7.3
May 2011	Tornado series	USA	4.9	7

Table 4: Largest losses beginning 2011 (estimates)¹⁰

THE JAPANESE EARTHQUAKE AND TSUNAMI ON 11 MARCH 2011

A magnitude 9.0 earthquake hit Japan on 11/03 at 2:46 p.m. local time, some 370 km north-east of Tokyo, followed by a tsunami which flooded the north-eastern coast of Japan. About 25,000 people were killed or reported missing and more than 100,000 buildings were damaged or destroyed.

Following the earthquake, operations in some nuclear power plants were shut down due to failures in the cooling systems. At the Fukushima Dai-ichi nuclear power plant (250 km northeast of Tokyo), such a failure triggered a nuclear meltdown with evaporating radiation.

Estimates on the economic losses by the earthquake and tsunami (excluding potential damage due to radiation) still vary widely; according to figures released by the Japanese government¹¹ up to USD 300bn might be realistic.

Compared to this figure, which would make this event the most expensive natural catastrophe of the recent past, insured losses appear relatively small with estimations ranging around USD 30bn¹², less than half of the claims caused by Hurricane Katrina in 2005; losses for international reinsurers are expected to be up to USD 15-20bn.

Among the most affected insurance lines of business are various types of property&casualty insurance:

¹⁰ See <u>http://www.munichreamerica.com/webinars/2011_07_natcatreview/2011_07_12_natcat_en.p</u> <u>df</u>, 28 July 2011.

⁸ See: Standard and Poor's Global Reinsurance highlights 2011 Edition, page 84

⁹ See <u>http://www.bbc.co.uk/news/world-us-canada-13217726</u>, 28 April 2011.

¹¹ http://www.bloomberg.com/news/2011-03-23/japan-sees-quake-damage-bill-of-up-to-309-billion-almostfour-katrinas.html

¹² EQUECAT published an estimate of 12-25 bn USD on 16/03, AIR Worldwide forecasted 20-30 bn USD on 25/03, and Towers Watson estimated 20-45 bn USD on 04/04

- With regard to residential property, only a minority of households has earthquake&tsunami coverage (roughly 20-30%). Furthermore claim pay-outs are paid through a central reinsurance counterparty (Japan Earthquake Reinsurance, a kind of public-private partnership) that covers part of the losses. Once losses get large (> JPY 1.9trn), the government de facto backstops them. Further, there is a conservative provisioning regulation for earthquake insurance which should mean that insurers have funds available to cover losses that they do have to pay out.
- On the commercial side, again, many objects are not or only partially covered for earthquake&tsunami (e.g. for fires resulting from earthquakes). The policies that are written are reinsured internationally to a large degree. Some figures for losses would point towards them being manageable – particularly given the fact that insurers' reserves are quite full.
- According to AON Benfield¹³, in specialty lines, early indications are that reinsurers will be minimally affected since the region devastated is a non-industrial area. Segments such as Aviation, Specie, Offshore Energy and P&I are not expected to produce significant claims to the reinsurance market. Even in Hull business most of the vessels seen in the media coverage were fishing vessels, whose coverage is largely retained domestically. Only a small number of Japanese ocean-going vessels were damaged, and none of these are confirmed as a total loss so far. As to cargo, there have been few reported large risk losses and at present the overall cost is expected to be relatively small for an event of such magnitude.
- Business interruption due to natural catastrophes is not widespread in Japan, though this line of business might be affected to some extent in Europe if Japanese corporations cease their supply e.g. in case of high-tech products.
- Losses caused by nuclear accidents that are triggered by natural catastrophes are usually excluded from nuclear liability insurance policies. Moreover, under the Japanese Nuclear Act of 1961, nuclear power station operators are not held liable for nuclear liability damage triggered by "extraordinary great natural disasters".
- The impact on life insurance depends on mortality and hospitalisation. Although, according to Risk Management Solutions¹⁴, life insurance coverage is high in Japan, with about 90% of the population covered by an individual policy and the average coverage exceeding USD 300,000, capital buffers of life insurance undertakings should be sufficient.

The EQECAT and Towers Watson estimates break down into the following lines of business:

13

http://www.aon.com/attachments/reinsurance/201104 ab analytics reins market outlook a pril.pdf

¹⁴ https://www.rms.com/Reports/RMS_Japan_EQ_Client_Advisory_March_2011.pdf

in bn USD	EQECAT ¹⁵ (09/05)		Towers Watson ¹⁶ (04/04)		RMS ¹⁷ (12/04)	
	From	То	From	То	From	То
Residential property	10	25	9.5	21.9	4	5
Commercial property	15	25	4.7	11.0	5	9
Co-operatives (Kyosai)					6	8
Auto	1	2	0.2	0.7	2	2
Marine	2	4	1.1	1.5	2	3
Life	3	5	2.9	4.6	3	8
Personal Accident	1	3	n.a.	n.a.		
International Insurance	n.a.	n.a.	1.5	5.0		
Total	22	39	20	45	21	34

The majority of reinsurance contracts in the Asia-Pacific region were renegotiated annually as of 1 April – this was considered (not only by the credit rating agencies) to be positive as higher premiums could quickly mitigate the losses. While some pricing negotiations which were originally due on 01/04 were delayed by a couple of weeks, prices for earthquake and tsunami coverage increased on average by 25-50%. This compares to a 50-100% hike in peak-zone catastrophe rates after Hurricane Katrina in 2005, according to Towers Watson.¹⁸

The economic impact is still difficult to assess: As industrial production slumped by more than 15% in March, growth forecasts for the Japanese 2011 GDP have been reduced by up to 0.5 percentage points; in 2012 reconstruction might show a positive effect with equivalently higher growth rates.

The reinsurance sector is managing the losses in the Asia-Pacific region well and so far neither rating actions nor changes in the outlook on reinsurers have been taken. But there is evidence of hardening rates in some of the Asia-Pacific region. Higher property catastrophe reinsurance premiums and tighter terms and conditions especially in Japan, Australia, and New Zealand are expected.¹⁹

MARKET TRENDS

- Five of the six largest global reinsurers are based in Europe. The European "Big Five" Munich Re, Swiss Re, Hannover Re, Lloyd's and SCOR are still dominating the global reinsurance market. As regards the regional distribution within the European Union, major reinsurers have their headquarters domiciled in DE, CH, FR, UK and LU²⁰.
- Most reinsurers are exposed to a material level of natural catastrophe risks. A central role is played by the catastrophe models developed by professional modeling firms. In 2011, the users of these catastrophe models faced two major challenges: First, the large number of catastrophes in the past months tested the reliability of the models. Second,

¹⁵ <u>http://www.eqecat.com/catWatchREV/secureSite/report.cfm?id=313</u>

^{16 &}lt;u>http://www.towerswatson.com/press/4209#</u>

¹⁷ http://www.rms.com/Publications/2011TohokuReport_041111.pdf

^{18 &}lt;u>http://www.towerswatson.com/press/4209#</u>

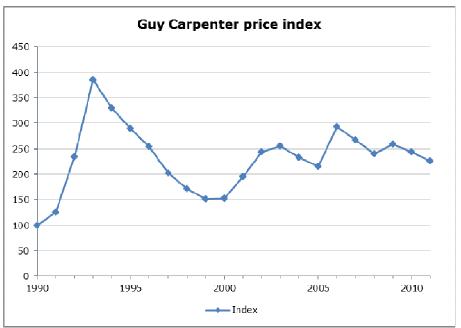
¹⁹ See Standard and Poor's Global Reinsurance highlights 2011 Edition, page 84

²⁰ See Standard and Poor's Global Reinsurance Highlights 2011 Edition, page 46/47

there were new releases to vendor models, including Version 11.0 of Risk Management Solutions Atlantic Hurricane Model (RMS v.11). The key point is that most modeling agencies disclose only a high level description of the catastrophe models they produce. The detailed modeling is kept confidential.²¹ The launch of the new version created uncertainty. Although the market has yet to determine fully how it will integrate the new version, it is expected that some companies will see aggregate exposures rise due to increased risk perception. Some reinsurers might even need to hold more capital to cover the same level of catastrophe exposure²².

DEVELOPMENTS IN THE REINSURANCE SECTOR 2011

The year 2010, which was characterised by a rebound of the financial market, resulted in lower reinsurance rates in 2011 of about 5% to 10%.²³ The Guy Carpenter Global Property Catastrophe (ROL) Index lost 7.5%, the second consecutive decline in two years²⁴.





After the earthquake in Japan the spreads for cat bonds almost doubled. In addition excess-of-loss covers for natural catastrophe covers rose between 5% and 50% in Japan.²⁵

Furthermore, reinsurance industry consolidation in the form of share buyback programs and the increasing potential for M&A activities could restrict the supply of reinsurance capital and could at least stabilise rates.²⁶

²¹ See Standard & Poor's Global Reinsurance Highlights 2011 Edition, page 30

²² See Guy Carpenter World Catastrophe Reinsurance Market Review, September 2011, page 8

²³ See Versicherungswirtschaft Heft 2, 15 January 2011, page 90.

²⁴ See Guy Carpenter Global Reinsurance Outlook, January 2011, page 3.

²⁵ See Versicherungswirtschaft Heft 8, 15. April 2011, page 533.

Price rises have been uneven in 2011, affecting only some business lines and regions. According to Standard & Poor's the increases seen have not been enough to turn the whole market.²⁷

<u>M&A ACTIVITIES</u>

The financial crisis of 2008 seriously hit the M&A activities. Investment portfolios were crushed along with significant drops of GDPs. This raised the pressure on the already soft reinsurance markets and led to time values of reinsurance companies still far below their value before the crisis started.

In 2010, M&A activity picked up dramatically. Activities were driven by the stabilisation of the financial markets which allowed buyers and sellers to better evaluate the risks and rewards of a transaction. Many reinsurers believe that taking over a company is better than a costly organic growth and the persistence of low valuations forced sellers to adjust to more realistic levels.²⁸

Most likely the level of M&A in the next 12 months will be affected by Solvency II. Strategic options for (re)insurers will be analysed focusing on noncore operations and alternative M&A transactions to clean up balance sheets and considering the use of run-off sales for example.²⁹

INSURANCE LINKED SECURITIES

In the first quarter of 2011, Insurance Linked Securities (ILS) issuance started relatively well with USD 1.015bn. The second quarter only saw an issuance of USD 592mn, resulting in USD 1.607bn overall for the first half of the year.³⁰

Given the size of the earthquake in Japan, for investors and sponsors CAT bonds have performed largely as expected. Despite this earthquake and further major catastrophes there has been continued issuance of new cat bonds. But compared to the second quarter of 2010, new issuance of ILS slowed down.³¹

For a further assessment of the CAT bond market see the following graph which depicts the Swiss Re CAT bond Total Return & Price Index:

²⁶ See Guy Carpenter Global Reinsurance Outlook, January 2011, page 17.

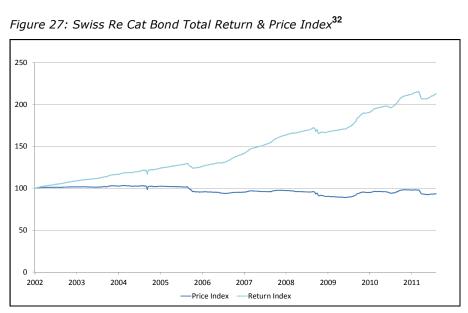
²⁷ See Standard & Poor's Global Reinsurance Highlights 2011 Edition, page 9

²⁸ See AON Benfield Reinsurance Market Outlook, January 2011, page 12.

²⁹ See Guy Carpenter World Catastrophe Reinsurance Market Review September 2011, page 24

³⁰ See <u>http://www.artemis.bm/blog/2011/07/01/catastrophe-bond-market-shrinks-further-becomes-u-s-hurricane-top-heavy/</u>.

³¹ See Standard & Poor's Global Reinsurance Highlights 2011 Edition page 77

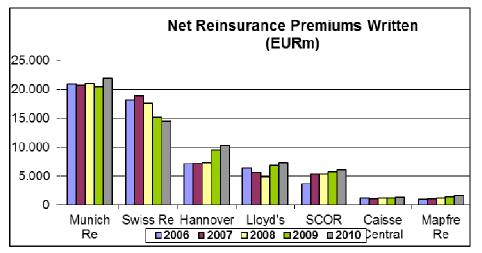


Source: Bloomberg

COMPANY INFORMATION

The commercial relevance of a reinsurance undertaking is expressed by the net reinsurance premiums written (net refers to net of retrocession). This figure is illustrated in the following chart for the years 2006 until 2010^{33} .

Figure 28: Net Reinsurance Premiums Written



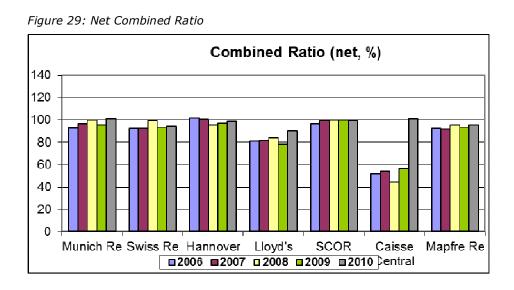
The (net) combined ratio³⁴ expresses the degree of underwriting profitability of the reinsurance undertaking. The following figure presents this data for 2006 until 2010^{35} .

³² See http://www.bloomberg.com/apps/quote?ticker=SRCATTR:IND http://www.swissre.com/media/news_releases/swiss_re_launches_the_first_catastrophe_bond_indices.ht ml

³³ See Standard & Poor's Global Reinsurance Highlights 2011 Edition, page 46/47; Changes in the 2009/2010 figures of the Munich Re are due to different segmentation

³⁴ Net combined ratio expressed as sum of net expenses, net claims and net increase in technical provisions as percentage of written premiums.

³⁵ See Standard & Poor's Global Reinsurance Highlight 2011 Edition, page 46/47



Despite the fact that Munich Re was impacted by high claims of major losses, Munich Re recorded an operating result of EUR 2.9bn for 2010, a decrease of 28.2% compared to 2009.³⁶ The premium income grew by over 8% to EUR 23.6bn. The combined ratio in property casualty reinsurance reached 100.5% of net earned premiums for the year as a whole, containing 11.0% points for natural catastrophe losses, which is well above the average of 6.5%. The combined ratio benefited from a moderate reduction of claims provisions. The investment result contributed EUR 3.4bn to the operating profit.

Concerning the first nine month of the year 2011, the result was hit by natural catastrophe losses and the difficult environment on the financial markets. The combined ratio was 117.9% of net earned premiums for the first three quarters compared to 102.1% of the same period last year. The combined ratio for July to September was 89.0% (93.8%). In the first nine months, 31.0 (10.8) percentage points of the combined ratio were related to natural catastrophes. Altogether, losses from natural catastrophes totaled EUR 3,589mn from January to September compared to EUR 1,134mn of the same period last year. The operating result fell to EUR -43mn, of which EUR 636mn derived from the third quarter.³⁷

Swiss Re was able to increase the full year net income to USD 2.3bn in 2010.³⁸ The operating income of the property casualty (P&C) reinsurance reached USD 2.5bn, down 30% due to higher large losses and lower net investment income. Compared to 2009, the combined ratio for P&C reinsurance increased to 93.9%. Life & Health contributed USD 810mn. Investment income achieved an operating income of USD 4.5bn due to lower impairments and lower hedging costs. In 2010, the convertible perpetual capital instrument issued to Berkshire Hathaway was terminated. This had an impact on the overall net income; it fell to USD 863mn.

Due to very high levels of natural catastrophe claims, Swiss Re reported a net loss of USD 665mn in the first quarter of 2011 and an operating net income of USD 960mn for the second quarter which results in a positive half-

³⁸ See Swiss Re news release, 17 February 2011.

³⁶ See Munich Re press release, 10 March 2011.

³⁷ See Munich Re press release, 08 November 2011

year net result of USD 295mn. P&C reported an operating loss of USD 1.2bn in the first guarter and an operating income of USD 993mn in the second quarter which results in a loss of USD 240mn for the first half of 2011. The combined ratio of P&C rose to 163.7% in Q1; the net impact of natural catastrophes on the combined ratio was 89.4% points. In Q2 that ratio was 78.4% and for the first half year in total it is at 119.4%. In the first half of 2011, Life & Health reported an operating income of USD 305mn, while asset management delivered USD 2.553bn.³⁹ In the third quarter of 2011, Swiss Re reported a net income of USD 1.3bn. All segments contributed to these results which were supported by a moderate natural catastrophe experience. P&C reported an operating income of USD 1.0bn compared to USD 1.1bn in the prior-year period. The combined ratio was reported to be 80.8%. The operating income of Life & Health was USD 145mn in the third quarter. This is due to growth in the Asian traditional life and health businesses and the Americas' traditional life business. The asset management delivered USD 1.2bn.⁴⁰

Hannover Re's gross written premium rose by 11.2% to EUR 11.4bn. In 2010, there was a slightly higher combined ratio of 98.2%. Major losses caused a total net expenditure of EUR 662mn; this was above the expected level of EUR 500mn. Despite the burden of major losses the operating profit increased to EUR 1.2bn⁴¹, this resulted in a group net income of EUR 749mn. Investment income improved to EUR 1.3bn.

In the first quarter of 2011, the combined ratio of Hannover Re property casualty reinsurance business reached 123.8% because of the impact of the major losses.⁴² However, in the second quarter this number went down to 97.7% and in the third quarter to 95.2% resulting in a combined ratio of 105.0% for the first three quarters of 2011. The major losses resulted in a net burden of EUR 743.2mn, which already exceeded the major loss budget for the entire year of EUR 530mn. Overall, Hannover Re managed to achieve an operating profit of EUR 332.9mn (Q1: 46.1mn, Q2: 200.6mn, Q3: 86.2mn).⁴³ Hannover Re reached a Group net income of EUR 381.7mn for the first nine month of 2011.⁴⁴

SCOR managed to generate a net income of EUR 418mn in 2010, up by 13% compared to the figures in the previous year.⁴⁵ The total gross written premiums reached EUR 6.7bn, representing an increase by 4.9%. SCOR realised a combined ratio of 98.9% in 2010 in spite of major loss events.

The first half of 2011 was marked by a series of exceptional catastrophe losses for SCOR. In Q1, the property casualty net combined ratio stood at 135.2%, of which 46.3% points are linked to natural catastrophes. In Q2, this ratio stood at 92.6% and in Q3 it stood at 94.8% resulting in 106.6% for the first nine months of the year 2011. Net income for the first nine month of this year is EUR 228mn. Investment income for the first nine months is EUR 464mn.⁴⁶

- ⁴⁴ See Hannover Re press release, 9 November 2011.
- ⁴⁵ See SCOR press release, 8 March 2011.
- ⁴⁶ See SCOR press release, 28 July and 10 November 2011

³⁹ See Swiss Re press release, 04 August 2011.

⁴⁰ See Swiss Re press release, 03 November 2011.

⁴¹ See Hannover Re press release, 9 March 2011.

⁴² See Hannover Re press release, 3 May 2011.

⁴³ See Hannover Re press release, 08 August 2011.

5. Developments in the European occupational pension fund market

Data sources This section highlights the main developments that occurred in the European occupational pension fund sector, based on feedback provided by EIOPA Members. 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, HU, MT). 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 occupational pensions, which for this year's report looks at 2009, EIOPA has supplemented this information with additional data for 2010. This data was collected where possible on a best effort basis from supervisors for a preliminary view of 2010 taking into account that in several countries full figures are not yet available. Data collected for 2010 has provided EIOPA with an approximate view of the financial position of occupational pension funds at the end of 2010. It should therefore not be read as a definitive summary of the current conditions but more as an indicator of the situation.

RECENT DEVELOPMENTS - MAJOR POLICY REFORMS

Common trends Some countries have seen structural changes and developments in 2009 and 2010 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.

Some reforms of the pension system are under way in several countries to ensure that the pension system will become more robust and sustainable. The reforms are addressed to the public pensions (PL) or to the entire pension system (NL, SI).

Developments aimed at increasing membership are reported by UK and IE that has plans to introduce a requirement for auto-enrolment for all employees into schemes meeting certain criteria (from 2012 and 2014 respectively) aimed at tackling low provision and take up in membership. In AT in 2010 the membership increased significantly as civil servants are now covered by the pension fund system.

Other countries, in order to reduce the public budget deficit and aiming to ensure protection for all workers, decided to transfer assets from some second pillar funds to a public fund (HU) or the Public Social Security system (PT).

Changes in the field of supervisory reporting systems have been seen in PT where major attention has been devoted to the risk management and internal control systems of IORPs. New accounting rules have been introduced in DE.

There have also been developments in disclosure to members and beneficiaries and in education initiatives. IT and SK have introduced new information requirements for pension funds to provide more detailed and personalised information to members. IT supervisor has also strengthened its role in the provision of information to members and set out to promote, together with other national supervisors, an initiative in the field of financial and pension education. As also mentioned in the section on Legislative and regulatory developments for the insurance sector, the decision taken by the Court of Justice of the European Union in March 2011 to compute premiums and benefits of insured individuals according to an unisex rule may have an impact also in the pension fund sector.

Finally, the European Commission has announced that they are reviewing the IORP Directive with the aim of facilitating cross-border activity and developing risk-based regulation. As part of this review EIOPA has been asked to provide advice on a number of areas.

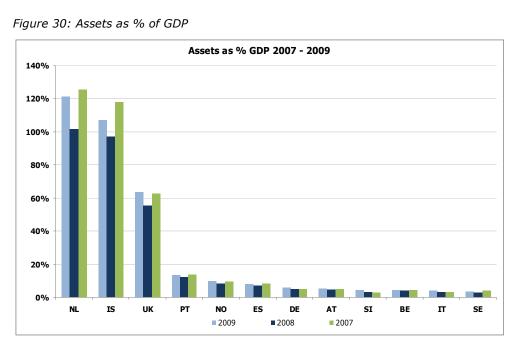
STRUCTURAL DEVELOPMENTS – ASSETS AND CONTRIBUTIONS

Accumulated assets

Size as a percentage of GDP The total size of assets as a percentage of GDP gives a good indication of the relative wealth accumulated by the occupational pension fund sector (see Figure 30). The size of occupational pension funds is to a large extent related to their time of enactment 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 portion of GDP. These two countries together make up for the vast majority of the overall assets invested in occupational pension funds across Europe. Data for IS also shows a very high level of assets relative to GDP. The population of Iceland being relatively small, total assets are much below the size of NL and the UK for example, while the relative importance of pension funds for the retirement income of pensioners in Iceland is substantial.

While for many countries the size of the occupational pension fund sector shown is relatively small, this can be partly explained by the fact that the data shown relate in their main part to IORPs (see Annex 3). However occupational pension benefits may also be provided through other mechanisms such as insurance contracts, which may form part of the retirement income in a country.

Also, traditional public sector pensions or other similar national arrangements can play a dominant role in the retirement system. This is especially the case for some continental European countries. However, we see that some of these countries are putting in place reforms to increase occupational pension provision resulting in increased membership and coverage of IORPs which is especially important with the growing pressures on pay as you go public systems.

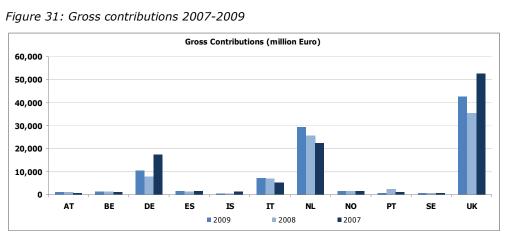


(Note: For SK, LV, PL, RO, BG figures are less than 2%. For the UK figures relate to DB schemes only.) Source: EIOPA

Contributions received

Source of funding

The main source of funding for pension schemes results from the contributions payable by both sponsors and members. Figure 31 shows the total estimated contributions for 2007 to 2009 with the main concentration being in DE, IT, NL and the UK. For a number of countries the gross contributions are relatively small, in part due to the reasons highlighted above regarding the importance of pension funds in the overall retirement income. Figure 32 shows the difference in gross contributions payable between 2007-2008 and 2008-2009. In general, the fluctuations in contributions are correlated with developments regarding employment and wages. Significant variations in contributions might be related to additional contributions paid by employers to improve the funding levels of IORPs (NL, BE, NO, UK) or if important reforms or events have taken place. This is the case for RO where a significant increase took place in 2008 as membership grew and members also chose to contribute more into their schemes.



Source: EIOPA

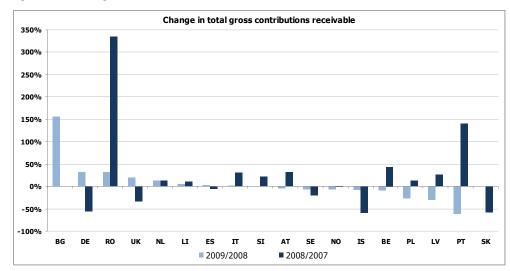


Figure 32: Change in contributions 2007-2008 – 2009

(Note: For BG, LI, LV, PL, RO, SI and SK figures are less than EUR 300mn. For non-Euro area countries, exchange rate fluctuations also impact on the reported figures. Movements in DE in 2007 are due to a shift from a few large industrial companies to IORP schemes. In subsequent years similar shifts turned out to be smaller). Source: EIOPA

Defined Benefit vs. Defined Contribution schemes

Figure 33 shows the allocation of contributions towards DB, DC or Hybrid schemes for 2009.

DB schemes still predominant but a shift towards DC

There is a wide spectrum in the levels of coverage between Defined Contribution (DC) or DB provision. In DE only DB schemes are permitted. In some other countries (BE, ES, IS, NL, NO, PT, UK) DB and Hybrid schemes make up the vast majority of the contributions being paid by sponsors. However, in some of these countries there is a reported shift away from 'traditional DB provision' as sponsors are increasingly choosing to replace 'traditional DB plans' and share a number of the risks with members or to set up DC plans instead. Some of these countries (UK, IE), in future years will likely see an increase in DC schemes following the introduction of automatic enrolment. In the Member States where occupational pensions are at an early stage of development or are even at the beginning of their life, DC is also the scheme design of choice. This is the case for BG, LV, PL, RO and SI where contributions in 2009 were allocated towards DC schemes only.

This trend from DB to DC will help reduce the vulnerability of sponsors and the pension fund 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 highlighting the need for providing appropriate information to members including financial education. Overall, there is a residual risk that unless suitable DC plans are in place, this movement might result in smaller retirement income than that provided by DB plans.

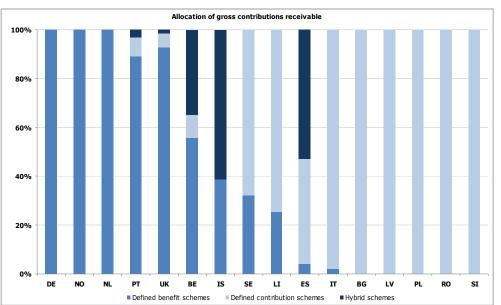


Figure 33: Allocation of contributions 2009

Source: EIOPA

Membership of IORPs

Membership continues to grow In general across Europe, we see the membership of IORPs growing. Figure 34 shows the change in membership numbers from 2007 to 2009 and in many Member States, there has been a significant increase over this time period.

This is especially the case in RO which has seen a sharp increase in membership from 2007 as IORPs gain in prominence. During 2009, in RO there were four new voluntary pension funds which started activity, managed by international asset managers. In AT a significant increase in membership rate has been seen when civil servants switched to the pension fund regime. In BE membership grew rapidly in 2007 and 2008 mainly as a result of the introduction of industry wide pension schemes mainly for the blue collar workers (54% in 2007 and a further 39% in 2008). There has also been a significant increase in membership in ES, LV and NO. In most other countries there has also been a steady and positive increase. However, SE saw a significant drop in membership in 2008 due to the liquidation of one IORP, whose members, assets and contributions were transferred to an insurance company.

In DE, as consequence of new accounting rules introduced in 2011 new "Pensionsfonds" have been established. Some companies have chosen to shift their book reserves schemes to "Pensionsfonds" because of lower administrative costs in managing these obligations.

Some structural trends are under process: in future years a significant increase in membership of DC schemes is expected as a consequence of an increasing shift towards DC schemes and the introduction of new plans. Furthermore, in some countries the number of pensioners is expected to rise with respect to the number of active participants. Concerns are growing over the decisions taken by some countries to transfer the retirement savings from the private pensions to the pay-as-you go systems. This decision might help to cut state debt but it could likely increase the problem of financial stability and pension system sustainability in the medium-long term.

Finally, a consolidation process of the occupational pension fund sector is underway in some countries, with the closure of several IORPS, mainly those of small size, or with the transfer of the portfolio to insurance undertakings.

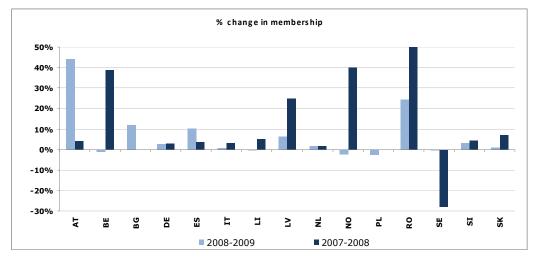


Figure 34: Percentage change in membership levels 2007 – 2009

Source: EIOPA

FINANCIAL DEVELOPMENTS - ASSET ALLOCATION, RETURNS AND FUNDING

ASSET ALLOCATION

Figures 27-29 show the aggregate asset allocations across countries for 2007 to 2009 for DB, DC and Hybrid schemes separately.

Divergence in asset allocation strategies for DB...

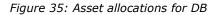
For DB schemes, in a number of countries (BE, NL, NO, PT and UK) there is a significant part of the investment portfolio dedicated to equities which, while the value and return on equities suffered during the downturn, remain a popular choice of assets. This likely owes to the long term nature of the 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. Also, given this long term liability, matching with fixed income or index linked assets is not always possible. The payment of dividends from equities held provides an ongoing source of income to the fund.

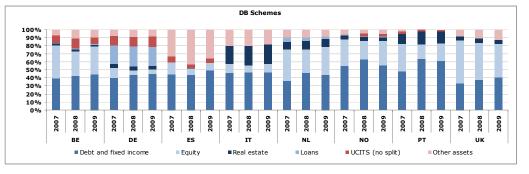
In some countries equities are seen as a higher risk investment and IORPs have therefore limited exposure to these assets. This has helped in minimising the immediate effects of the downturn in the equity market. Also, even in those countries that dedicate a significant portion of the assets to equities have seen a gradual move towards the less risky debt and fixed income class. This may be a result of the volatility and uncertainty of equities. For the UK this is also seen as a natural progression as the DB market gains in maturity.

In countries where the pension promise is linked to a guaranteed return on the contributions rather than a final or average salary, we see a greater investment in debt securities and guaranteed return investments with limited equity exposure. This is due to the underlying guarantee provided to the member and the need to reduce volatility in order to provide a greater degree of certainty over the asset returns year on year in order to meet this promise.

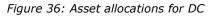
...and DC... For DC schemes there is a significant variety in the preferred asset allocations. In PT, RO, SI and SK there is a very heavy bias towards debt and fixed income securities making up over 60% of the portfolio (over 90% in SK). Also, AT, BE and PT have over 20% dedicated to equities while in the others there is a bias towards other asset classes. For Hybrid schemes there is again a strong bias for debt and fixed income securities, but equities have a significant role in BE, IS and PT.

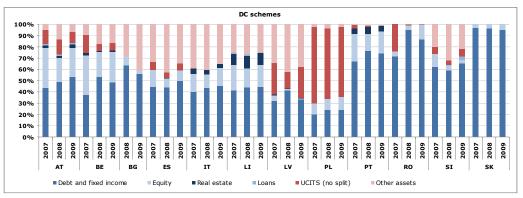
These differences and variations for DC and Hybrid schemes will be due to a number of factors, most likely including the nature of the scheme itself, who is making the investment decisions and who bears any type of guarantee or promise and also the nature of the investment market in the country concerned.





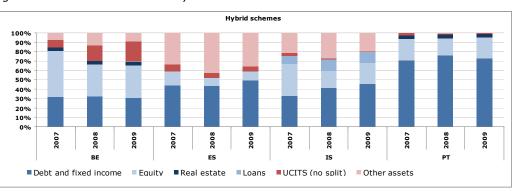
Source: EIOPA





Source: EIOPA





Source: EIOPA

Higher equity exposure in 2010 Following survey results on a best effort basis, occupational pension funds invested approximately about 14% of total assets in sovereign debt of EEA countries (plus Japan, Switzerland and the United States), 9% of their assets in banks (through bonds, equity and other instruments like loans or deposits) and about 7% of their assets in real estate (via mortgage loans, covered bonds and indirect investments).

According to preliminary data provided by supervisors on a best effort basis, the general exposure to equity markets has been higher in 2010 compared with 2009 and 2008 when the asset allocation shifted towards debt securities, and in particular, towards government bonds either as a reaction to the crisis to reduce exposure to risky assets or as consequence of the variation of asset price. However, the trend in the asset allocation is not clear because this increase in exposure to equity investments could be due to the change in value of assets, as consequence of the substantial recovery of related financial markets, or to the deliberate modification of the asset allocation.

ASSET RETURNS

Significant
positiveFigure 38 gives an estimate of the rate of return on assets for all schemes
from 2007-2009. Sharp drops in the equity markets seen in 2008 put their
investment portfolios under severe strain. Some exceptions have been seen
e.g. in countries where systems are at an early stage of development or due
to the relatively high share of debt securities (FI, DE, RO, BG) as opposed to
equities.

The recent financial turmoil hit IORPs primarily in their role as investors and (mainly for DC schemes) members' confidence. However, in the recent crisis IORPs played a role different to that of other areas of financial services. IORPs did not have the same issues in respect to liquidity and the threat of a 'run on the bank' in the same way as the banking sector. Member States either did not experience the closure of any IORP/scheme; or when it happened, the number of closures or wind ups for different reasons has not been exceptional with respect to the previous years.

The nature of an IORP, in that they are designed to provide retirement benefits in the future for members, make it a long term undertaking requiring decision making to 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 in many countries a number of security mechanisms available to them in the event of under-funding.

In 2009, pension funds of all countries realised positive returns (significant for some).

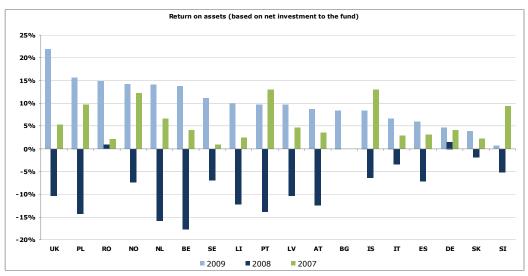
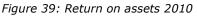
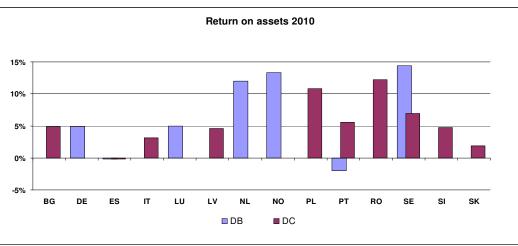


Figure 38: Percentage return on assets 2007 - 2009

Source: EIOPA

In 2010, according to data provided by supervisors on a best effort basis, returns on assets have generaly been positive, although less than those of 2009 as pension funds were affected by both the fluctuations of equity markets and, in the second half of the year, by the impact of the turbulence affecting EU sovereign debt.





Source: EIOPA

AVERAGE FUNDING LEVELS

Funding levels are recovering As would be expected the financial turmoil reduced the funding levels for DB schemes in 2007 and 2008 across Europe. In some countries funding fell below 100 per cent which is allowed for a limited time by the IORP Directive as long as a concrete and realisable recovery plan is in place. 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 defined benefit commitments. For example differences exist around the establishment of assumptions (best estimates, levels of prudence) which can have a significant effect on the liabili-

ties 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 where the existence of security mechanisms other than up front capital requirements to the IORP reduces the need for a higher funding level. Overall security or solvency cannot therefore be understood by viewing this figure in isolation without a full appreciation of all the elements involved including the security mechanisms available.

Data for 2009 and 2010 provided by supervisors on a best effort basis, shows that the recovery in the financial markets in the last 2 years has had a significant positive effect on the funding positions of IORPs in most Member States, although for some not yet back to the levels seen in 2007. However while funding levels have improved, there still exists a great deal of uncertainty in the financial markets and the current low interest rate environment also creates differing problems in the DB and DC sector.

Also, for countries where IORPs are not funded to the full level required by the national law, deficit contributions are being paid by sponsors aimed at bringing IORPs up to the required level in their national jurisdiction. As a consequence of the crisis, some supervisory authorities accepted a longer than normal recovery period (NL, UK). A lot of recovery plans, still in place, consisted of amending the financing plan in general leading to a higher level of contributions to be paid and sometimes changing the risk profile of the assets. In NO, as many pension funds chose to keep a high exposure to equities, they needed to raise additional capital in 2008 and the beginning of 2009. In some cases the measures taken implied a reduction of benefits for pension participants (AT, NL) or the removal of the indexation of benefits for some time (NL).

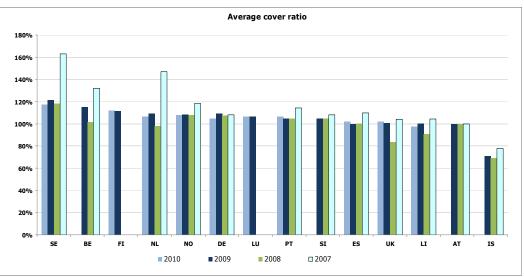


Figure 40: Funding levels

(Note that the data for 2010 is very preliminary and often survey-based so should not be read as a definitive view of 2010. Data for technical provisions for PT is provided as an estimate on a best effort basis). Source: EIOPA Supervisory Risk Assessment for the Occupational Pension Fund Sector

EIOPA Members and Observers have been asked to assess risks and challenges, out of list of 28 items, according to the probability of a materialisation and the impact on the national occupational pension funds market. Based on the responses from 19 national supervisory authorities⁴⁷, the following risks and challenges are classified as the most imminent, ranked by the product of the scores for probability and potential impact (see Table 5).

Main risks Equity risk, sovereign risk and a prolonged period of low interest rates are the risks with the highest overall ranking. The potential impact on the pension fund sector is considered to be significant if one of these risks should materialise.

PENSION FUNDS (based on 19 replies)	Average probability of risk	Average impact of risk	Development over the last 12 months	Expected development over the next 12 months
(ranking based on probability times impact)	1 = low 2 = medium-low 3 = medium-high 4 = high	1 = low 2 = medium-low 3 = medium-high 4 = high	-2 = cons. decrease +2 = cons. increase	-2 = cons. decrease +2 = cons. increase
Equity risk	3,1	2,9	1,0	0,1
Credit risk - Sovereigns	3,0	2,7	1,1	0,3
Interest rate risk - prolonged period of low interest rates	2,8	2,8	0,2	0,0
Regulatory & reporting changes	2,7	2,6	0,3	0,6
Interest rate risk - sharp increase	2,2	2,8	0,2	-0,4
Tax and pension reforms	2,3	2,6	0,6	0,5
Economic cycle	2,5	2,4	0,6	0,4
Credit risk - Corporates and private households	2,3	2,4	0,4	0,1
Longevity risk	2,3	2,2	-0,4	-0,1
Currency risk	2,2	1,8	0,5	0,1
Inflation	1,6	2,3	0,2	0,0
Property risk	2,0	1,6	0,1	0,0

Table 5: Classification of most imminent risks for the occupational pension fund sector

Source: EIOPA

... over the past months

Over the last year (see Table 6), virtually all the twelve risks mentioned above have increased. The highest increases are reported with regard to sovereign risk, equity risk and a potential downturn of the economic cycle which mirrors the assessment by insurance supervisors.

Table 6: Development in risks for the occupational pension fund sector over the last 12 months

PENSION FUNDS (based on 19 replies)	Development over the last 12 months
	-2 = cons. decrease +2 = cons. increase
Credit risk - Sovereigns	1,1
Equity risk	1,0
Economic cycle	0,6
Legal risk	0,6
Tax and pension reforms	0,6
Currency risk	0,5
Credit risk - Corporates and private households	0,4
Consumer confidence	0,4
Liquidity risk	0,3
Regulatory & reporting changes	0,3

⁴⁷ AT, BE, BG, DE, ES, HU, IT, LI, LU (Commissariat aux Assurances and CSSF), LV, NL, NO, PL, PT, RO, SE, SI, SK.

Source: EIOPA

... for the next months

For the next twelve months (see Table 7), only some risks are expected to increase significantly, especially Regulatory & reporting changes as well as tax&pension reforms given the fiscal consolidation in all European countries. Also with regard to the economic cycle and sovereign risk, no material relaxations are expected in the upcoming months – instead the risks are expected to increase further.

PENSION FUNDS (based on 19 replies)	Expected development over the next 12 months
	-2 = cons. decrease +2 = cons. increase
Regulatory & reporting changes	0,6
Tax and pension reforms	0,5
Economic cycle	0,4
Credit risk - Sovereigns	0,3
Legal risk	0,2
Currency risk	0,1
Credit risk - Corporates and private households	0,1
Equity risk	0,1
Interest rate risk - prolonged period of low interest rates	0,0
Property risk	0,0

Source: EIOPA

SUPERVISORY REACTIONS AND LESSONS LEARNT FROM THE CRISIS

Supervisory In light of the continuing financial and economic downturn, the responses of supervisors have focused on the flexibility within their frameworks and the different security mechanism available. Due to the severity of the crisis, some countries introduced additional measures such as increasing the length of recovery plans or being more amenable in their structure given the economic environment. In several countries, the measures introduced in 2008-2009 have been in force throughout 2009 and 2010 but the frequency of additional reporting declined noticeably.

Improving the communication with the industry has been considered an essential tool to react to the crisis and to promote key messages through the industry. In the context of DC schemes, supervisory authorities strengthened their communication strategy emphasising the long-term perspective of pension performance mainly in case of weak returns.

The crisis did not have a systemic impact on the EU occupational pension system; the current regulatory and supervisory regime is seen by many as being flexible enough to face the effects of the crisis.

Several supervisors are working, in some cases in close contact with governments and other authorities, to evaluate whether possible changes in the legislation or regulation framework are needed in order to mitigate the procyclical effect of solvency requirements and to improve the risk management of pension funds, avoiding the risk of ad-hoc-changes in the regulation as a means to artificially minimise the impact of future financial crisis. Some countries are paying significant attention to the management of risks and extreme scenarios and on the better calibration of risk-based reserve requirements.

In DC systems, increasing attention is paid to financial education and to communication to members in order to strengthen the awareness of the risk involved in financial market investments and on the proper investment horizon of investment for retirement. Also, discussions are started around how to better share risks between IORPs/employers/members and to improve design of default options.

6. Summary of the Low Yield Satellite Scenario

As part of the EIOPA 2011 stress test exercise a satellite scenario was devised to explore the resiliency of the insurance industry to a prolonged period of low interest rates. Given the considerable workload put on undertakings during the core stress test exercise, it was agreed to conduct the "low yield" stress as a satellite scenario i.e. after the conclusion of the core stress test exercise, and to include its results in the Autumn 2011 Financial Stability Report.

The motivation for conducting the low yield stress test exercise is the emergence of an environment of extremely low yields as observed in several economies, currently and during the past decade, for example in Japan since the 1990ies, and recently in some European countries as well as in the US. A prolonged period of low interest rates can be harmful for insurance undertakings by increasing the present value of liabilities, as well as depressing reinvestment returns. In turn, such a scenario would materially jeopardise the ability of undertakings to meet performance guarantees provided on certain insurance contracts, and thus lead to an erosion of the capital position of certain segments of the industry.

Given the focus of the satellite scenario on interest rate risk, only undertakings that a priori were deemed to have interest rate sensitive balance sheet positions were included in the analysis. For this reason, compared to the scope of the core stress test, the sample of reporting undertakings was slightly reduced to 82 in total.⁴⁸ Otherwise, the setup of the low yield stress test is identical to the core test i.e. valuations are based on Solvency II/QIS5 Technical Specifications and the reference date is 31 December 2010.

Two types of interest rate scenarios were investigated:

- 1) A downward movement in the level of interest rates in accordance with an unconditional forward rate of 4.2%, and a pronounced u-shaped flattening of the curve in the shorter part of the maturity spectrum.
- 2) A downward movement in the yield curve to a level and shape similar to the lowest level of the Euro curve observed in recent years (August 2010).

Yield curves were derived for the same set of currencies that was covered in the core stress test exercise.⁴⁹ A visual illustration of the shape and location

⁴⁸ It was left at the discretion of national supervisors to eliminating those undertakings from the original sample where exposure to interest rate risk would not be material (e.g. pure non-life insurers or unit-linked insurers).

⁴⁹ Additional background information on how the yield curves were constructed as well as the resulting curves for each included currency is available at <u>https://eiopa.europa.eu/activities/insurance/insurance-stress-test/index.html</u>.

of the resulting yield curves is provided in Figure 41, for the case of the Euro area. The figure also shows the Euro pre-stress test curve as of end December 2010.

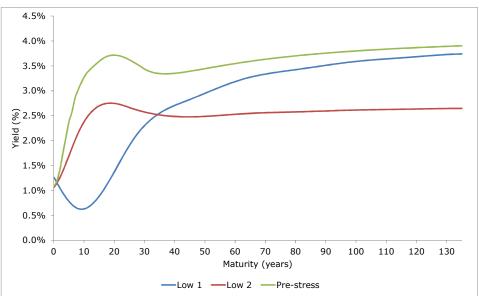


Figure 41: Low yield scenario curves – Euro area

Participating undertakings were requested to apply the set of supplied yield curves as instantaneous shocks to their whole (relevant) balance sheet, and report the outcome. Activities that would not be materially affected by the described changes in the yield curves could be excluded from the calculation. Undertakings were also requested to provide feedback on a number of qualitative questions related to the underlying drivers of the results.

Using the pre interest rate shock MCR as a basis for the solvency assessment, that is the same MCR that was used in the core stress test exercise, there are eight undertakings that do not have enough own funds to cover the MCR, i.e. where the solvency ratio is below 100%, when applying stress-curve 1 (labeled as "Low 1" in Figure 41). Using stress-test-curve 2 (labeled as "Low 2" in Figure 41) there are four undertakings having solvency ratios below the 100% mark. The "solvency deficit", i.e. the capital needed to restore a 100% MCR coverage amounts to approximately EUR 6 bn and EUR 2 bn for scenarios 1 and 2, respectively. The eight and four failing firms, depending on which scenario curve that is applied, naturally constitute the tails of the total data set comprising the companies included in the sample.

To provide a richer picture of the obtained results, Figure 42 shows the solvency ratio dispersion among the undertakings participating in the exercise. The figure shows the 10, 25, 50, 75 and 90 percentiles of the distribution of solvency ratios, before the stress, and when applying the above mentioned two low-yield stress-test curves. A noticeable effect is observed after applying the stresses as the 10th percentiles of the solvency distributions move near the 100% mark. Also, the median is affected in a similar way, moving from around 400% to approximately 330%-380%. In this connection it should be recalled that the low-yield stress test was performed on the same basis as the 2011 core stress test exercise.⁵⁰ This means that results under-

⁵⁰ https://eiopa.europa.eu/activities/insurance/insurance-stress-test/index.html

takings provided data on a best effort basis, and that the MCR was used as a yard stick for the solvency measurement, neglecting to some extent that national supervisors would already initiate actions, were SCR levels to be crossed. In addition, the objective of the stress test exercises remains to be to assess the resilience of the EU insurance sector to major shocks, to understand evolution of capital position of insurers in adverse situations, and to evaluate the overall stability of the insurance market. Conversely, it should be mentioned that stress testing is not meant to provide input to the design or provide input to the design of future capital requirements in Solvency II.

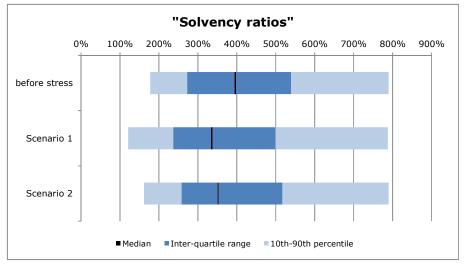


Figure 42: MCR Solvency Ratios – Low Yield Scenario

Source: EIOPA

While it is not possible to identify underlying characteristics of the firms that are more severely affected by the applied low-yield stress curves on the basis of the collected data, it is clear that the industry on average will be adversely affected by a prolonged period of low yields. Depending on the particular shape and location that such a low-environment yield curve would assume, results suggest that 5% to 10% of the included companies would face severe problems, in the sense that their solvency ratio would fall below 100%. In addition, an increased number of companies would observe that their capital position would deteriorate with solvency rates only slightly above the 100% mark, whereby they could become vulnerable to other potential external shocks.

Annex 1: Country abbreviations

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

Annex 2: Legislative Developments for the Insurance and Reinsurance sector

The regulation of insurance activities was updated with regard to the insurance undertakings' and brokers' authorisation in RO, and to procedural rules and evaluation criteria for the prudential assessment of acquisitions and increase of holdings in the financial sector in CZ. In October 2010 SI adopted amendments to the Insurance Act, mainly relating to the operations performed by mutual insurance undertakings, the elections of the representatives to the assembly of these undertakings, and to the rights and obligations of members of mutual undertakings.

Asset management Changes have been implemented in the regulation of insurance companies' investment activities. In this regard NO has widened life insurers and pension funds opportunities to invest in unquoted securities and securities issued by companies that own or operate in infrastructure activities. DE revised its circular on the investments of insurance undertakings, which also applies to Pensionskassen. The Circular highlights the firms' obligations as regards: (i) a qualified investment management system; (ii) appropriate internal investment rules; and (iii) control procedures. The revision of the Circular includes new provisions regarding the investment in commodities (5% limit) and shareholder loans (Gesellschafterdarlehen).

Connected to the assets eligible to cover technical provisions, IT issued a new Regulation n.36, which implements and renews the provisions already acknowledged by the Italian legislation. The rules widen, under well-established limits, the range of possible assets eligible to cover technical provisions (e.g. participation in buildings societies).

- **Reporting** Changes in the field of supervisory reporting systems have been enacted in CZ and FR where the focus was placed on investment holdings, with the intention to obtain more detailed information on the composition of the assets held by each undertaking. In ES rules on statutory reporting were amended to help develop a more complete and accurate framework for the analysis of the solvency condition of entities and market developments.
- Accounting New principles regarding the valuation of consolidated accounts were introduced in ES during 2010, particularly in the regulation for accountancy of insurance undertakings. The purpose of these changes is to adapt national rules to Regulation (EC) 1725/2003 and Regulation (EC) 1004/2008.

Temporary measures were introduced to Regulation n. 28, issued in 2008 in IT, extending its effects till the year 2010. The regulation, which has been reiterated also for the year 2011, allows insurance undertakings (not producing consolidated balance sheets) not to align the balance-sheet value of held for trade financial instruments to the price which can be inferred from the market performance, but to keep it at the most recent book value (semi-annual), provided that: i) the valuation is coherent with the future cash outflow of the undertaking; ii) the difference between such a value and the market value, at each year end date, is classified into a non-distributable reserve.

Against the backdrop of the exceptional turmoil in the financial markets ISVAP issued in March 2011 Regulation n. 37 implementing law n. 10 of February 2011 (which amends the anti-crisis decree n. 185). The decree in-

troduces an optional system, of exceptional and transitional nature, for the valuation, for supervisory purposes (adjusted solvency calculation), of the government debt issued or granted by EU Member States held for a long period (not for trading purposes) in the asset portfolio of Italian insurance companies. When calculating the adjusted solvency, the insurance company shall be allowed not to take into account the market value of such instruments, but to make reference instead to the book value of those assets, if higher. ISVAP Regulation 37 lays down instructions to implement this anticrisis law including -among others- a provision which limits the use of the pursued option up to 20% of the adjusted solvency margin as well as the definite involvement of the board of the insurance which decide to adhere to this faculty. The effects of the ISVAP Regulation have been extended to the financial year 2011.

In PT, taking into account the need to align accounting rules with solvency rules and considering the current market situation, a Regulation was issued in June 2011 (Regulation 4/2011) allowing insurance undertakings not to deduct from eligible own funds the difference between market value and amortised cost when, according with the accounting Rules (that in PT are based on IFRS) the assets are classified as held-to-maturity.

Governance, internal control systems and risk management

New rules were introduced with reference to the risk management and internal control systems in BG to build up and maintain an information system for risk assessment, management and control, including for the issuance of policies under the compulsory MTPL insurance. New provisions were introduced regarding governance in CZ and IS. IS also published a guidance on risk management to prepare the undertakings for the risk management requirements in Solvency II.

In line with the recommendations by IMF, CEIOPS and IAIS, IT issued regulation n. 36, aiming at bringing a new set of laws into action, in the field of governance, investments management and internal audit (among them the statement which specifically asks for an ad hoc resolution by the Administrative Body with regard to investment policy to be pursued by the company). Furthermore specific limits are included regarding securitisation in order to keep down investment risk. Finally, it can be mentioned that anti-money laundering and terrorism financing legislation has been implemented in LU.

Life Some countries introduced new regulations for life insurance contracts to contain the yield of such contracts to sustainable levels, as well as to react to the rapid increase in single premium contracts, by requiring life insurance companies to create separate portfolios for such products, to conduct liquidity planning similar to that of banks and to determine contract duration in advance (FR, DE).

Guaranteed interest rates There have also been developments in guaranteed interest rates in the premium formula for life insurance contracts. AT reduced the guaranteed rate for classical life insurance contracts from 2.25% to 2% as of 1 April, 2011; NO lowered the maximum guaranteed rate for new life insurance contracts from 2.75% to 2.5%, with effect from 1 January 2011; DE lowered the maximum interest rate for life insurance companies and "Pensionsfonds" from 2.25% to 1.75% (effective as of 1 January 2012). DK lowered the maximum guaranteed rate for new life insurance contracts from 2% to 1%, with effect from 1 January 2011.

Another issue under consideration by NO is the issue of product rules for life insurances and pensions, especially in relation to the formulation of the an-

nual interest rate guarantee that the introduction of Solvency II has brought into focus. The calculation of capital requirements under Solvency II brings the risk associated with a one-year time horizon considerably more into focus than the present capital requirement.

Advertisement In PT in 2010, the main regulations issued by Instituto de Seguros de Porand registry tugal concerned the areas of advertising and registry of insurance contracts: (i) Regulation number 3/2010, 18 March 2010 set the principles and rules applicable to publicity/advertising by insurance undertakings, insurance intermediaries and pension fund management entities; (ii) Regulation number 14/2010-R, 14 October, regulates the central register of life assurance, personal injury insurance and capital redemption operations. This central register is used to obtain information on the existence of life insurance and personal injury insurance policies or capital redemption operations, in which there is an entitlement of a third party to a payment in case of death of the insured person or the subscriber, as well as the identification of the corresponding insurer and beneficiary; and (iii) through Circular number 12/2010, 23 December, Instituto de Seguros de Portugal issued guidelines regarding reciprocal relationships between insurance undertakings and insurance intermediaries.

Technical change of the interest rate curve for discounting of liabilities

In DK technical provisions are valuated daily on full discounted basis using a mark to market curve constructed as the Euro swap curve plus the spread between Danish and German government bonds that was assumed to be non-negative. Recently there has been observed abnormal demand on Danish government bonds from foreign investors leading to a decreased spread compared to Germany that is now effectively negative.

While the Euro swap part can be hedged effectively the hedge of the government spread is bounded by the relatively low volume of Danish government bonds. The observed developments in illiquid markets combined with the incentive to hedge in Danish government bonds has lead to a negative pro-cyclical spiral where undertakings' attempt to hedge the decreasing government bond spread by buying Danish government bonds which has further decreased the spread to a point where it is now negative.

As the market now has a pro-cyclical incentive the Danish FSA has decided to act as a circuit breaker by giving life insurance companies the possibility to use a technical adjusted interest rate curve. In this curve the interest rate spread between Danish government bonds and German government bonds is based on a 12-month moving average with a zero floor instead of daily observations. The new interest rate curve is mitigating the day-to-day incentive giving a relief of the market pressure from life insurance companies.

Insurance undertakings that choose to use the new interest rate curve will experience a correction in their economical buffers. That correction is split into two parts where the part arising from the current negative spread goes un-changed into the buffers whereas there is an upwards adjustment of the capital requirement corresponding to the positive part ensuring that undertakings are protected against a structural decreasing spread.

Transparency In IT, ISVAP Regulation 35 pursues the goal of further strengthening the transparency and the disclosure regime related to insurance contracts in order to protect and help the consumer. Particular attention has been given to insurance contracts linked to mortgages (and other term loans) for which specific mandatory instructions have been implemented, to make it easier

for policyholders to switch the provider. In RO, the principles related to the information given to the clients by the insurance undertakings and brokers have been completed. In FR a new decree (n. 2010-40 of 11 Jan 2010) was published on 11 January 2010 on the relationship between life insurance intermediaries and life insurance companies in terms of the content of the information that is provided to the policyholders.

A verdict of the German Federal Administrative Court ruled that private health insurers cannot require higher premiums from existing policyholder that switch between tariffs compared with new policyholders. BaFin was the petitioner of this case and won the trial against a particular private health insurer.

Concerning private health insurance, BaFin informed on 9 December 2010 that the average initial commissions paid to intermediaries increased considerably over the past years. At on-site inspections, BaFin will therefore determine, in more detail, whether risk management practices of insurers are adequate in that respect.

In RO changes were implemented to the professional qualification and continuous training of the personnel working in the insurance business, also in IS the Financial Supervisory Authority (FME) has been working on fit and proper requirements for key persons in insurance undertakings during the year.

- In 2010, an amendment was made to the Act on compulsory insurance, In-MTPL surance Guarantee Fund and Polish Motor Insurers' Bureau, in PL. In RO the main changes were undertaken in the regulatory requirements that are provided in the provisions issued by the Romanian Insurance Supervisory Commission in 2010 dealing with MTPL insurance (authorisation, risks covered, contracts' duration, reporting losses, paying indemnities, the bonusmalus system); In MT the Companies Act (Incorporated Cell Companies Carrying on Business of Insurance) Regulations 2010 were issued by L.N. 558 of 2010. Insurers carrying on motor business in Malta are no longer required to subscribe to the Motor Insurance Pool as from 1 January 2011. Consequently a number of necessary amendments were made to relevant insurance rules issued under the Insurance Business Act. Motor vehicle license fees collected by insurance intermediaries, as from 1 January 2011, are being considered as clients monies. Given that insurance intermediaries are required to hold clients monies separately from their own monies, this has required amendments to various insurance intermediary rules. Also, work is currently being carried out on the transposition of the Solvency II framework directive.
- **Taxation** In HU the special tax on financial service providers is expected to decrease the profit of the insurance sector in 2010 and 2011. This is deemed to have a noticeable impact on the solvency position of HU insurers henceforth. In EE, unit-linked products have previously been subject to taxation, that is unit-linked contracts had to be held for 12 years before investment gains were treated as being tax-free. This requirement was removed in August 2010 without having retroactive effect, and now unit linked contracts have no further tax benefits compared to other investment products. In addition EE adopted the euro on 1 January 2011 at the rate of exchange of EEK 15.6466 to EUR 1.

Also in BG changes to the tax law were implemented: the Law on the insurance premiums tax became effective as of 1 January 2011. This Law imposes a premium tax of 2% over the insurance premiums for certain classes of non-life insurances. In FR a new regulation was adopted on 22 December 2010 specifying the fiscal treatment of the "réserve de capitalisation".

Solvency II In addition to the initiatives mentioned above, as a final note, it can be mentioned that during 2010 CY initiated the process of transposing the provisions of the Solvency II Directive into the national insurance companies' legislation. Also in SK solvency II preparations are underway. Another issue under consideration by NO is that the introduction of Solvency II has brought into focus the issue of product rules for life insurance and pensions, especially in relation to the formulation of the annual interest rate guarantee. The calculation of capital requirements under Solvency II brings the risk associated with a one-year time horizon considerably more into focus than the present capital requirement.

Annex 3: Scope of EIOPA's 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 Statistics⁵¹. 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 fund sector.

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

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

Likewise, Pillar I compulsory social security schemes and Pillar III individual retirement savings are excluded from the scope as these are not covered by the business statistics on pension schemes. It should be noted that not all Member States of the EEA operate occupational pension provisions. Data availability varies substantially among the various Member States, which hampers a thorough analysis and comparison of the pension market developments between Member States.

<u>Austria:</u>

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 18 per cent 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.

<u>Bulgaria:</u>

Pension fund statistics relate to institutions for occupational retirement provisions.

⁵¹ Methodological manual for pension funds statistics (<u>ISPFS Oct01 doc14 PF Manual.pdf</u>).

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 7,000 persons and the total amount of assets is approximated EUR 5 billion. Consequently Finanstilsynet in Denmark do not, for the pension fund sector, regularly report to EIOPA.

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.

<u>Hungary:</u>

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.

<u>Italy:</u>

Data covers autonomous pension funds related to contractual pension funds, open pension funds (occupational and personal) and pre-existing pension funds (including pre-existing funds whose resources for retirement benefits are held by insurance companies) Data does not cover book reserve schemes and PIP (personal pension schemes implemented through insurance policies).

Latvia:

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

Luxembourg:

There are two 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.

<u>Norway:</u>

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 funds
- 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 pension 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.

<u>Romania:</u>

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).

<u>Slovakia:</u>

Pension fund statistics relates only to the privately managed voluntary DC pension system (3rd pillar) supplementing publicly managed PAYG system and retirement pension savings (2nd pillar)

<u>Slovenia:</u>

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

Spain:

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

Sweden:

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

United Kingdom:

Data for the UK mainly relates to schemes covered by the Institutions for Occupational Retirement Provision Directive. Both Defined Benefit and Defined Contribution schemes exist in the UK. Some information from non-IORP schemes and surveybased data has also been included in order to give an indicative view for the UK. Funding level data has been provided from end-of-year estimates by the UK fund established to pay compensations in the event of employer insolvency. Data for 2010 is provided on an estimate and best effort basis.