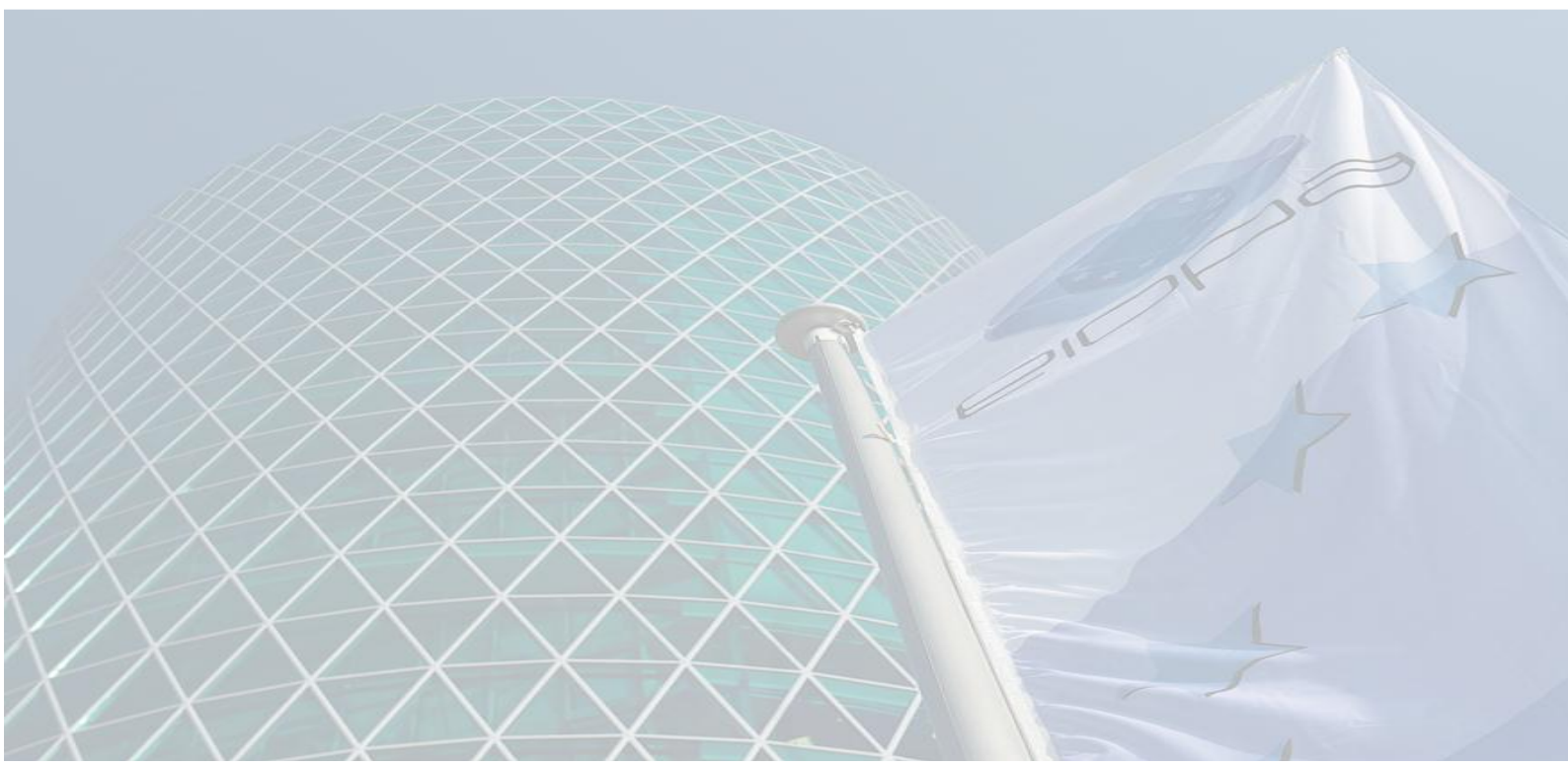




Financial Stability Report

Second Half-Year Report | Autumn 2013



About EIOPA Financial Stability Reports

Under Article 8 of Regulation 1094/2010, EIOPA is, inter alia, mandated to monitor and assess market developments as well as to undertake economic analyses of markets. To fulfill its mandate under this regulation EIOPA performs market intelligence functions regarding its supervisory universe, develops a market surveillance framework to monitor, and reports on market trends and financial stability related issues. The findings of EIOPA's market development and economic analyses are published in the Financial Stability Report on a semi-annual basis.

(Re) insurance undertakings and occupational pension funds are important investors in the financial market and provide risk sharing services to private households and corporates. In the financial markets, they act as investors, mostly with a long-term focus. Their invested assets aim to cover liabilities towards policyholders or members of pension fund schemes to which long-term savings products are offered, e.g. in the form of life assurance or pension fund schemes. Aside from offering savings products, (re)insurance undertakings provide risk sharing facilities, covering biometric risks as well as risks of damage, costs, and liability.

Financial stability, in the field of insurance and pension funds, can be seen as the absence of major disruptions in the financial markets, which could negatively impact insurance undertakings or pension funds. Such disruptions could, for example, result in fire sales or malfunctioning markets for hedging instruments. In addition, market participants could be less resilient to external shocks, and this could also affect the proper supply of insurance products or long-term savings products at adequate, risk-sensitive prices.

However, the insurance and pension fund sectors can also influence the financial stability of markets in general. Procyclical pricing or reserving patterns, herding behavior and potential contagion risk stemming from interlinkages with other financial sectors, are examples that could potentially make the financial system, as a whole, less capable of absorbing (financial) shocks. Finally, (re)insurance undertakings might engage in non-traditional/non-insurance business such as the provision of financial guarantees or alternative risk transfer, which also needs to be duly reflected in any financial stability analysis.

The Financial Stability Report draws on both quantitative and qualitative information from EIOPA's member authorities. Supervisory risk assessments as well as market data are further core building blocks of the analysis.

Second half-year report 2013

EIOPA has updated its report on financial stability in relation to the insurance, reinsurance 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 sectors as of 20 November 2013 unless otherwise indicated.

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Foreword by the Chairman

Since the publication of EIOPA's last Financial Stability Review in July 2013, the core elements of the risk environment facing EU insurance undertakings and occupational pension schemes has remained largely unchanged. The reporting season showed relative resilience in the profitability and solvency of EU insurance undertakings, but the latent risks facing the sector cannot be ignored. There is no cause for complacency. The main risks, namely, the low yield environment, the weak macro-economic climate and credit risk from exposure to sovereigns and financial institutions remain mostly unchanged.

EIOPA identified early on that a prolonged low yield environment would pose a significant risk. Our coordinated supervisory response was set out in an EIOPA Opinion that we issued in February 2013. Our coordinated EU-wide approach promotes enhanced supervision, engagement with firms to take actions to mitigate the risks inherent in certain products and actions to understand the full magnitude of the challenges faced. We raised awareness about this potential risk at the ESRB level and now this is included in the ESRB overview of systemic risks. In 2014, we plan to run a comprehensive stress test. It is envisaged that the protracted low interest rate environment will be a central part of this test. The stress test will also address other key risks that may impact the insurance sector.

On the investment side, exposure to sovereigns and financial institutions poses a varied challenge for entities that ranges from those experiencing very low yields on the sovereign holdings to others facing the risks of spread reversals on their higher yielding sovereign and bank exposures. As part of its continuous monitoring of the insurance market, EIOPA is looking at concentrations in sovereigns and financials, trying to better understand the "search for yield" behaviour, assess the "liquidity swap" activity of undertakings and look at some recent value in force monetisation where we see life companies exchanging future potential cash-flows for value today. All of this work is contributing to our understanding of the interconnectedness of the insurance sector with the rest of the financial system. This is a theme that we will be pursuing in greater detail in 2014.

I cannot mention the financial stability environment without reference to the agreement on the Omnibus II Directive and the confirmation of the starting date for Solvency II of 1 January 2016. There is much to do to be ready for this date and the area of financial stability analysis does not escape. Notwithstanding the responsibility that Solvency II will place on EIOPA to identify adverse developments that trigger certain elements of the Solvency II framework, financial stability analysis will be faced with a new data set. We will need to re-examine the metrics that we use for assessing risk exposures, resilience and other aspects of financial stability analysis. Solvency II will provide us with a rich source of information for stability analysis and I look forward to further developments in this area.



Gabriel Bernardino

Executive Summary

The risk environment facing the insurance and occupational pensions sectors remains relatively unchanged since the last EIOPA Financial Stability Report in July 2013. The low interest yield environment is still the most prominent risk; putting pressure mostly on life insurers' and occupational pension funds' ability to pay guaranteed rates of return and to maintain strong profitability and financial profiles in the long-run. Moreover, economic conditions in European countries are still fragile and deflationary tendencies prompted a cut in official Eurozone interest rates in November 2013. The weak macroeconomic climate has a negative effect on written premium growth. Furthermore, contagion risk from exposure to sovereigns and financial institutions might remain a challenge for the insurance and the occupational pension sector in certain circumstances, although it is acknowledged that the long term nature of the insurance and occupational pension sector may also somewhat buffer the effects of such contagion risks. In Europe, the Omnibus II agreement reached by the Trialogue parties removes the regulatory uncertainty around implementation of Solvency II which will be fully implemented in 2016. Insurance regulation on investment risks should promote an accurate reflection of risks and ensure alignment with policyholder interests. Moreover, the strong flow of new capital into insurance-linked securities (ILS) is also causing some concerns and need to be monitored.

In the insurance sector, the weak macroeconomic climate and low yield environment continue to constrain sales and pushes some firms to look outside their national boundaries. Moreover, undertakings are retreating from guaranteed products in traditional non-linked life insurance and focusing on unit-linked products. The share of unit-linked business is increasing in many countries, but the development is far from uniform. Solvency I levels for life and non-life are dropping, but remain well above the 100% minimum requirement. However, the implementation of Solvency II will drive changes in the solvency position of insurers. Profitability for the insurance sector has been relatively robust but remains under pressure due to the low yield environment.

The global reinsurance sector continued its robust growth in 2012. Major loss events from natural catastrophes in the first half of 2013 compare favourably with previous years. Profitability for the reinsurance sector has been relatively high, but remains under pressure due to the low yield environment. Solvency I capital levels of reinsurers tend to be rather high and global reinsurer capital increased to an all-time high. Insurance-Linked Securities (ILS) reached its highest levels for both new issuance and outstanding volumes since 2007, with large capital inflows across the sector.

In the occupational pension sector, total assets, penetration rate as well as gross contributions receivable and net cash flows increased significantly in 2012. Although defined benefit schemes still dominate, there is a clear trend towards defined contribution schemes in many countries. Investment allocation of

pension funds has not significantly changed over the last year and pension funds across Europe reported higher returns on assets in 2012 compared to 2011. Most national authorities report that cover ratios are sufficiently high in 2012. However, the low interest rate environment prevailing in many European countries makes it more difficult for defined benefit schemes to meet the guaranteed return. To some extent pension funds can compensate for low yields by increasing the annual interest premium. There is, however, a risk that premium increases will reinforce the current trend of employers in the private sector closing down their defined benefit plans.

The EIOPA quantitative and qualitative risk assessments confirmed the challenging environment for the insurers and pension funds. Although the situation varies between countries, the low yields and the weak macroeconomic environment continue to have a negative impact on both insurance companies and pension funds. Moreover, the quantitative analysis carried out showed the high sensitivity of gross written premiums and lapse rates to macroeconomic indicators such as the GDP, unemployment and interest rates. At the same time, overall risks have come down somewhat since the previous Financial Stability Report, albeit to a very minor extent. EIOPA's quantitative framework clearly shows that premium growth in life insurance would be hit strongly under any adverse macroeconomic scenario.

The report is structured as follows: The first chapter discusses the key risks identified for insurance and occupational pension sectors. The second, third and fourth chapter elaborate on those risks more specifically for each monitored sector (insurance, reinsurance and pension). The fifth chapter provides the final qualitative and quantitative assessment of the risks identified in the first chapter and further monitored in the subsequent chapters. This assessment is done in terms of the scope as well as the probability of their materialization using econometric techniques and questionnaires.

1. Key macro-prudential risks

Despite several challenges in the global economy, the financial position of insurance companies and occupational pension funds is relatively stable. The main risks, namely, the low yield environment, the weak macro-economic climate and credit risk from exposure to sovereigns and financial institutions remain mostly unchanged since the previous Financial Stability Report review. However, challenges in regulatory developments and some other risks such as the inflow of new capital into the re-insurance sector and some catastrophic events cannot be ignored.

1.1. Low yield environment

The low interest rate environment remains the most prominent risk to the insurance and occupational pension sectors. Although monetary policies followed by European, US and Japanese central banks have lessened vulnerabilities in the banking sector and contributed to financial stability in the short term¹, the resulting lower interest rates on corporate and sovereign bond rates in many countries (the Eurozone periphery being a clear exception for other reasons) create a challenge. This is especially true for life insurers and occupational pension funds that suffer a double impact on their balance sheet. On the liability side, they see the present value of their obligations increase. On the asset side, the reinvestment returns shrink while the reinvestment risk of assets increases.

The precise timing of when the effects of a prolonged low interest rate environment would manifest themselves on insurers' balance sheets depends on the accounting methodology in use. If market value is in use, the impact is very rapid since any decline in benchmark interest rates is reflected in the discount rate applied to liabilities. This effect is amplified where the duration of liabilities is greater than that of assets. The outcome is that reported available assets to cover solvency are eroded. A relatively small number of EU jurisdictions utilise market value in insurance at present and they have already felt the impact of low interest rates. If historic cost accounting is used then the impact on an insurer's balance sheet appears more slowly since it emerges through lower profits or losses that are ultimately taken to the balance sheet. The fact that the effects of low interest rates are slow to emerge in balance sheet terms does not mean the problem is not there and there is a real risk that firms could build up hidden problems. Although the risk of hidden problems can be mitigated by effective supervision, this argues for the examination of a wider set of metrics when assessing the performance and condition of firms exposed to this risk.

¹ See IMF Global Financial Stability Report, April and October 2013.

Box 1: How low interest rates affect insurance companies

The effects of low interest rates can be broken down into three elements: cashflow effects, reinvestment effects and effects on the valuation of assets and liabilities.

Cashflow effects stem from yield spread compression, as new premiums and maturing investment returns are reinvested at lower yields relative to the yields that insurers have committed to pay. The available margin on this business is gradually eroded by a low yield environment if no action is taken to alter the underlying position. A prolonged period of low interest rates may also have an adverse impact on non-life insurers as low investment returns makes it difficult to compensate for weak underwriting results or counteract the effects of inflation on longer tailed business.

Reinvestment risk arises when maturing investments are reinvested in lower yielding assets. This also exposes the insurer to adverse changes in asset values if market yields rise suddenly.

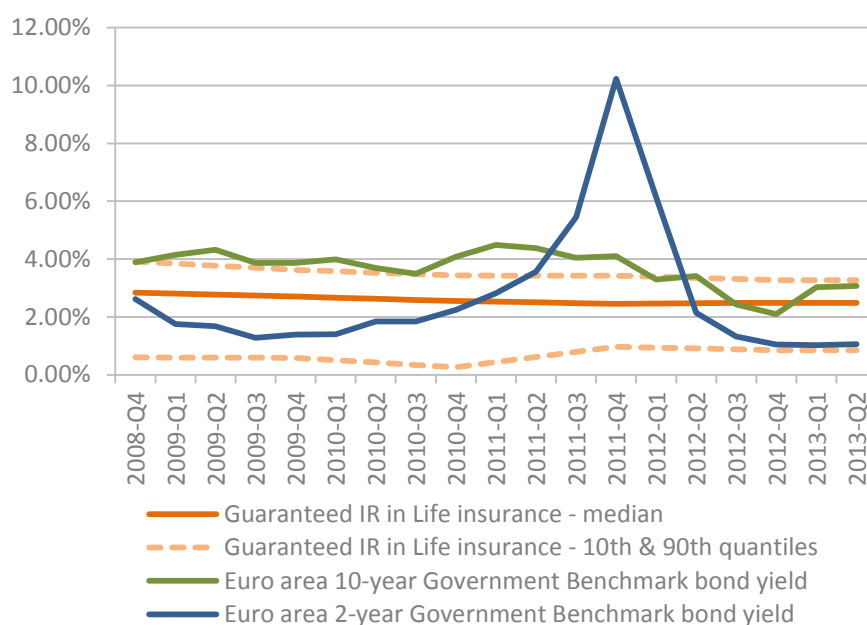
Valuation effects stem from the adverse effect of a low yield environment on the present valuation of assets and liabilities. Although the exact effects on the balance sheet depends on the valuation method in use, a decline in benchmark interest rates will be reflected in the discount rate applied to liabilities. When the duration of liabilities is greater than that of assets, which is the normal state for large life insurance entities in the EU, the outcome is that available net assets to cover solvency would be eroded by a fall in interest rates because the present value of liabilities would increase more than that of assets.

The low yield environment puts pressure mostly on life insurers' and occupational pension funds' ability to serve guaranteed rates and maintain strong profitability and financial profiles in the long-run. The impact depends on the prevailing relationship between interest rates, market yields and guaranteed returns, as well as the duration mismatch and composition of the insurer's and occupational pension fund's balance sheet. Long term interest rates are of critical importance to life insurers and occupational pension funds, since these institutions typically have long run obligations to policyholders and beneficiaries that become more expensive in today's terms when market rates are low. Consequently, the financial position of these firms typically deteriorates under such conditions, in particular where the duration of liabilities exceeds that of assets, which is typically the case of life insurers and occupational pension funds. This problem is even more pronounced where guaranteed rates of return have been offered to policyholders or beneficiaries (i.e. defined benefit schemes).

This situation is likely to be a concern among a large share of the sample of life insurers covered by EIOPA data (Figure 1). In fact, the benchmark bond yield index (i.e. Euro area 10-year Government bond) was at the lowest level since

2000 and lower than the averaged guaranteed rate on the portfolios of more than half of the insurers in the last quarter of 2012. A similar trend has also been observed for shorter maturities, however, with a spike from mid-2011 till Q1 2012 and an inverse yield curve.

Figure 1: Guaranteed Interest Rate in Life insurance vs. Euro area 10Y and 2Y Government Benchmark bond yield



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland) and ECB
 Note: The figures represent annual guaranteed rates for businesses where such guarantees are applied

A prolonged period of low interest rates may also have an adverse impact on nonlife insurers when investment returns are used to compensate for weak underwriting results. In some cases, buoyant investment returns have facilitated intense price competition for market share with some firms operating with technical underwriting losses. Non-life insurers may also be affected in a situation where low yields do not provide sufficient returns to counteract the effects of inflation on longer tailed business. This is a more difficult situation, since it requires inflation hedging over a long maturity.

Low interest rates may encourage other business model changes such as alterations in asset allocations in a "search for yield". This may create new risks on the asset side of the balance sheet. A low yield environment and depressed market returns lead insurers to invest in more profitable instruments. In order to offer higher returns, such investments would generally also carry

more risks, and may include e.g. hedge funds and equities. So far, major shifts in the asset allocation of undertakings have not yet been observed.

Box 2: "Search for yield" behaviour

In a low yield environment insurers may be tempted to engage in more risky activities or follow a more aggressive investment strategy by shifting a considerable part of their investment portfolio to more risky assets. This conduct is usually known as "search for yield" behaviour. There is a need, however, to differentiate between usual behaviours to optimize yields by re-allocation of portfolios from undesired behaviours resulting in an inappropriate increase of risk exposure. The term "search for yield" usually refers to the latter.

A "search for yield" is considered to be undesirable if the undertaking's risk appetite exceeds its risk bearing capacities and risk management capabilities. In this context risk bearing capacities have to be evaluated from various perspectives: determination of own funds as well as quantification of risks based on economic valuation but also taking into consideration accounting and regulatory requirements and restrictions.

In relation to insurance "search for yield" behaviour may take place, for example, by significantly increasing the investments in riskier financial assets without appropriate management of increased risks (e.g. bonds below investment grade, hedge funds, equities or certain classes of real estate investment); engaging in liquidity swap and other instruments above a certain threshold considered to be normal for efficient cash-flow management; entering into new businesses (e.g. credit guarantee or credit insurance business) without the expertise to do so; or providing direct credit to the economy in the form of mortgage loans.

Insurers in central and northern European markets are the most exposed to further declines in interest rates. This heightened sensitivity is generally due to the long maturity and rigid guarantees offered to policyholders, but it can be partially mitigated by hedging.² These are also the markets where the sovereign bond yields are lower. Higher sovereign yields in Southern Europe on the other hand reflect higher sovereign risk.

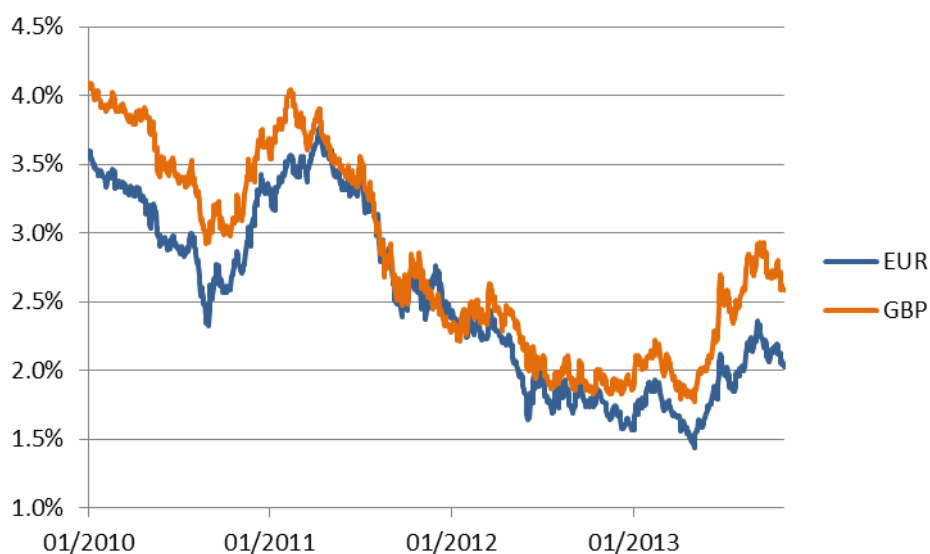
A recent slight increase in European swap rates may signal a changing trend, but a steep increase could pose a new combined challenge.

Although a number of interest rates are relevant for insurers (e.g. rates on sovereign and corporate bonds), increases in the 10 Year SWAP rates are indicative of an expectation of future increases in the risk free rate. If this trend continues, it may give some relief to the insurance sector, especially if this increase continues gradually and remains in line with generally improving

² See Swiss Re Sigma (2012): "Facing the interest rate challenge", Report No. 4.

economic conditions. At the same time, any sudden increase in risk free interest rates (or a spread reversion with increased credit spreads) would lower the value of bonds in the portfolio of insurers and pension funds and could negatively affect their solvency position. Moreover, a sudden increase in yields might cause life insurance products to be less competitive compared with short term banking products, which may in turn increase lapse rates and force insurers to sell assets and realise some losses. Overall, for the insurance sector, the future development of interest rates presents a combined challenge (of both low interest rates, but also of risks of sharp increases), in particular if the changes are not reflected in technical interest rates.

Figure 2: 10 Y Swap rates



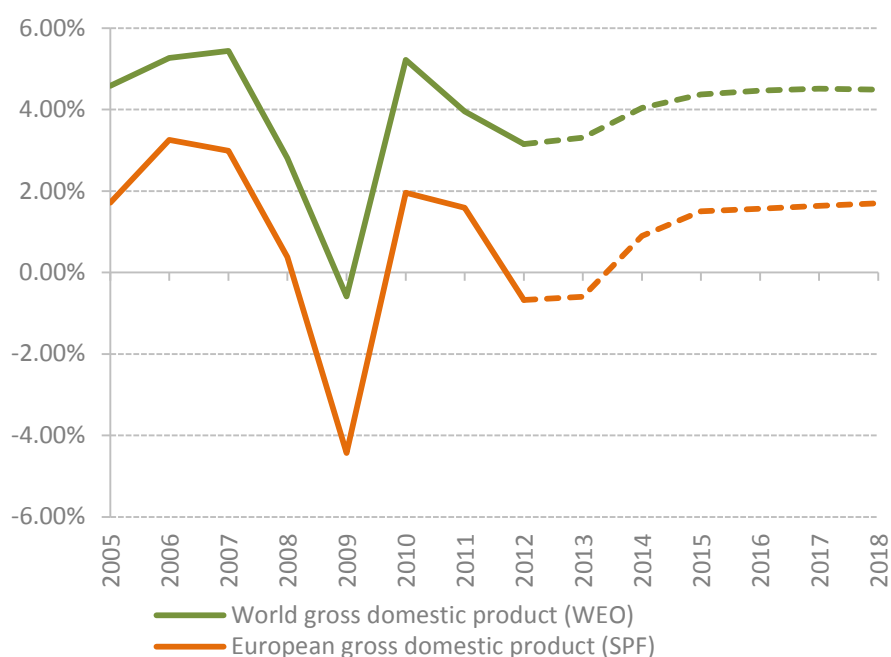
Source: Bloomberg

1.2. Weak macro-economic climate

The economic conditions in European countries are still fragile. Despite some improvement (although from low levels) in recent EU and global economic sentiment data (see Figure 3), overall economic conditions are difficult across the EU comprising a wide range of experiences and many macroeconomic imbalances remain unresolved. In particular, vulnerabilities from the overleveraged private and public sectors and prevailing uncertainty in asset quality remain. The uncertain macroeconomic outlook for the EU is driven by the concern of a double-dip recession and prolonged low economic growth equilibrium for the EU.

Substantial differences in the economic performance in Europe pose the risk of further market fragmentation with the impact on business models and strategies among internationally active insurance companies and occupational pension funds.

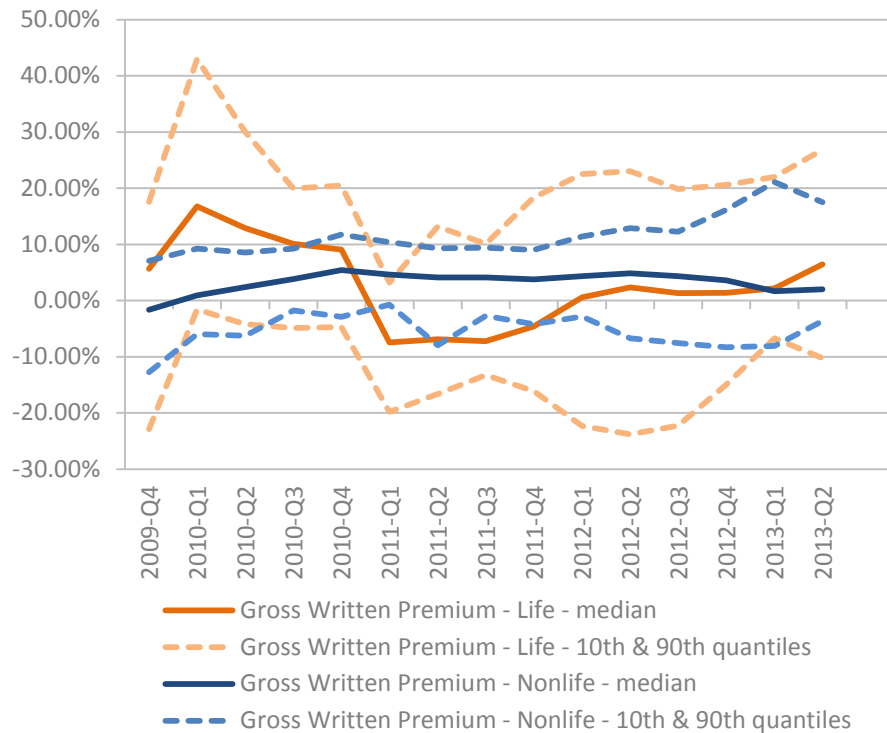
Figure 3: Economic growth



Source: World Economic Outlook and ECB survey of professional forecasters
 Note: The dash lines correspond to IMF forecast

The weak macroeconomic environment has a negative effect on written premium growth. Subdued economic growth, increasing unemployment and subsequent weakened household disposable income are the main factors of this development, in particular in developed markets. While life insurers are more sensitive to economic growth with high dispersion among companies, non-life insurers benefit from a more stable demand regarding the economic growth in EU, in part due to the fact that several business lines (e.g. motor third party liability - MTPL) are compulsory (see Figure 4). Growth in insurance premiums, for internationally active firms, both life and non-life, was mainly achieved due to the expansion into emerging markets such as Central and Eastern Europe, South East Asia, Latin America or Africa. However, the risk of reversal of performance in these markets cannot be ruled out.

Figure 4: Gross Written Premium (GWP) Life vs. Non-Life (growth rate, in %)



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland) and ECB

1.3. Credit risk

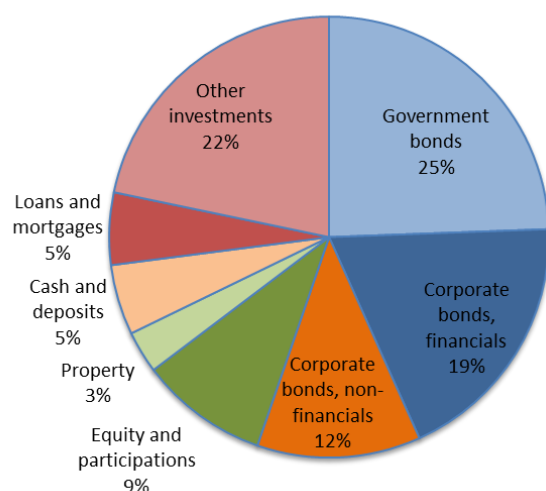
Contagion risks from exposure to sovereigns and financial institutions might remain a challenge for the insurance and the occupational pension sector in certain circumstances. National government bonds are often the first choice to match insurance liabilities. Hence, insurers are vulnerable to the deterioration of local economic and financial conditions. Although these risks have been reduced since the beginning of 2012 with lower CDS spreads both on sovereign and financial bonds, a sudden reversal in spread narrowing and further sovereign downgrading (see Table 1) cannot be ruled out. Due to the large share of investments held in sovereign and financial bonds, any materialisation of such risks would have a significant impact. This might have a negative impact on insurers' access to capital markets to obtain fresh funds if ever needed, because the contagion risks from other sectors affect the insurers' own creditworthiness and attractiveness to investors.

Table 1: Sovereign downgrades in 2013 (Downgraded rating, date of downgrade)

Country	S&P	Moody's	Fitch
France	AA/stable November 2013	Aa1/negative November 2012	AA+/stable July 2013
Italy	BBB/negative July 2013	Baa2/negative July 2012	BBB+/negative March 2013
Netherlands	AA+/stable January 2012	Aaa/negative July 2012	AAA/negative March 2013
Spain	BBB-/stable November 2013	Baa3/stable December 2013	BBB/stable November 2013
UK	AAA/negative July 2013	Aa1/stable February 2013	AA+/stable April 2013

Large European insurers are estimated to hold almost 25 per cent of their investment portfolio in government bonds and 19 per cent in financial bonds in Q4 2012 (see Figure 5). Although the combined share of both financial and government bonds have been fairly stable over the period from Q4 2009 to Q4 2012, the share of the latter has increased slightly by 2% (at the expense of financial bonds during this time). A deterioration of sovereign credit quality and rating downgrades could create a domino effect threatening financial stability. However, some groups have been working to gradually improve the diversification in their bond portfolios, both by industry and geography without significantly increasing the risk exposure.

Figure 5 Average composition of the investment portfolio of large European insurers in 2012



Source: EIOPA (sample based on 30 large insurers in EU and Switzerland)

In the occupational pension sector, exposure towards the financial sector is roughly the same as in insurance. Information collected from national authorities indicate that pension funds on average held 29% of their portfolio in sovereign debt and 17% in financial bonds. However, the investments in sovereign debt vary substantially across countries, but are often between 40 and 70 per cent in many jurisdictions.

Reassessment of risk premia in global markets might negatively impact expectations regarding debt sustainability in stressed countries. The low interest rate environment and search for yield contributed to the build-up of imbalances in key credit and asset markets. Despite recent increases in risk premia and more elevated debt-to-GDP levels than in recent years, yields in key global sovereign markets remain substantially below their historical averages and might be re-assessed upwards to be in line with fundamentals (see Figure 6). Such a development might result in a materialization of a double hit scenario and a substantial increase in credit risks of insurers as well as some occupational pension funds.

1.4. Regulatory developments

In Europe, Solvency II has finally been agreed, and will be fully implemented in 2016. Earlier EIOPA Financial Stability Reports highlighted the risks arising from uncertainty on the future regulatory framework of the European insurance industry in combination with the acknowledged shortcomings of the current Solvency I framework. The Omnibus II agreement reached by the Triologue parties on 13 November removes the uncertainty around implementation of Solvency II, giving both insurance undertakings and supervisory authorities clarity on the shift to the new framework from 2016. Solvency II is a large step forward, as risk-based regulation and supervision will provide a more accurate picture of (re)insurance undertakings situation not only considering the current circumstances, but also the implications of future developments. There is still much work to be done in terms of issuing secondary legislation and guidance, which will need to fully reflect the underlying logic of the Solvency II project.

In the interim, Solvency I will remain as the solvency regime in force. EIOPA, along with national supervisory authorities must ensure that risks are carefully managed and dealt within the current regime to maintain the stability of the insurance sector and to provide a sound basis for the implementation of Solvency II. To that end the EIOPA preparatory guidelines aim at promoting that progress is made by undertakings to make the necessary transition over the duration of the interim period towards having all the requisite governance surrounding underwriting risks and investments in place. Although this does not imply that undertakings' portfolios already have to be changed to the extent undertakings would consider necessary when the Solvency II regime is fully applicable.

Furthermore, it now needs to be ensured that the Solvency II regime is implemented in a consistent manner to provide supervisors, policyholders and investors with a realistic view on the ability of insurers to fulfil their promises under given market conditions.

The publication of the names of Globally Systemically Important Insurers (G-SIIs) constituted an additional step forward in terms of regulatory development, but detailed consequences remain to be seen.

In July 2013, the IAIS published an initial assessment methodology for G-SIIs and the FSB in consultation with national supervisory authorities published the initial list of designated G-SIIs.³ Five out of the nine identified primary insurance groups are EU domiciled (Allianz, Aviva, Axa, Generali and Prudential Plc).⁴ G-SIIs insurers are seen to pose risk to financial stability because their scope, the nature of their business and their position in the financial system is such that their disorderly failure would cause disruption to the wider financial system and the real economy. This requires a stronger focus on the prevention and management of systemic risks within G-SIIs across the globe. However, a number of consequences for the identified G-SIIs remain to be defined in more detail, such as the basis and degree of higher loss absorbency. Furthermore, the systemic importance of reinsurers will only be assessed in 2014.

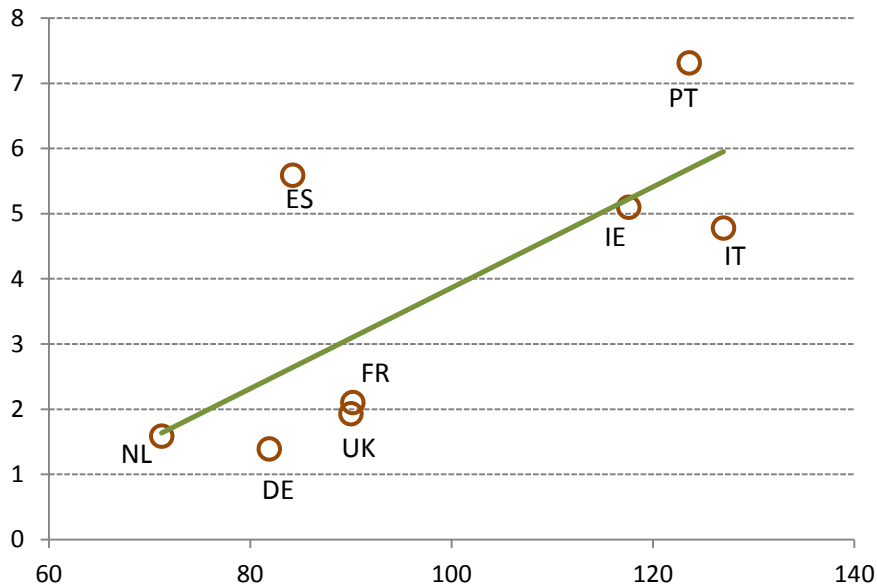
Insurance regulation on investment risks should promote an accurate reflection of risks and ensure alignment with policyholder interests.

Especially under current economic conditions, there is an increased focus on the institutional investor role of insurers and pension funds. However, it should be kept in mind that insurers and pension funds need to structure their investments so that their liabilities are well matched while providing sufficient diversification and security to their policyholders. Any amendments to the regulatory treatment of certain types of investments need to accurately reflect underlying risks and avoid concentration of risk exposures. Otherwise, policyholders may end up with insufficient protection which could ultimately impair their willingness to enter into long-term contracts.

³ IAIS (2013): "Global Systemically Important Insurers: Initial assessment Methodology", July 8.

⁴ The other four are the US entities AIG, MetLife, Prudential and the Chinese Ping An.

Figure 6: Fiscal debt to GDP (x-axis, in %) vs. 10-year government bond yield (y-axis, in %)



Source: ECB, Bloomberg

1.5. Other Risks

The strong flow of new capital into insurance-linked securities (ILS) raises some concerns.⁵ The significant change in the market has been driven by subdued economic growth and a low yield environment increasing demand from investors who are searching for safe investments uncorrelated with other assets. It is expected that over the next years funding will increasingly come from alternative sources, such as “sidecars” (see section 3.4⁶) – specialist vehicles set up by insurers that non-insurers can invest in. Some concerns are that inflows of new capital into ILS, such as catastrophe bonds originate mostly from fixed-income investors, such as pension funds who are searching for yield,⁷ but not necessarily having the modelling capabilities and experience to fully analyse the underlying risks and complexity of the insurance market. Without adequate supervision, such developments could cause systemic risk.

A number of non-life insurers and reinsurers have been significantly affected by natural catastrophic events. The costliest natural disaster this year was the massive flooding event across Central and Eastern Europe in May and June 2013. However, economic losses (22bn USD, insured losses 5.3bn

⁵ ILS are risk transfer instruments that are based on the packaging of insurance portfolios which are sold in the capital markets to interested investors. A prominent segment in this market is the class of catastrophe bonds.

⁶ Insurance-Linked Securities, August 2013, AON Benfield

⁷ Insurance-Linked Securities, August 2013, AON Benfield

USD) were still below the 10-year (2003-2012) average and do not seem to have caused any major financial stability concerns yet.

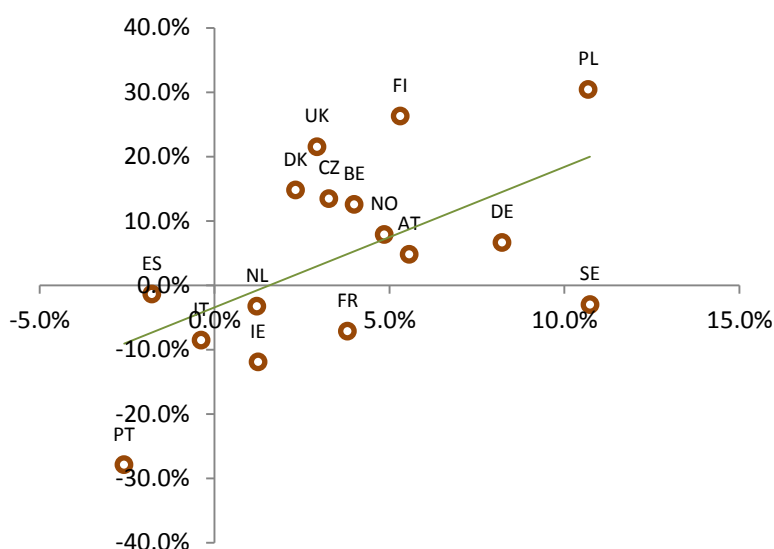
2. The European insurance sector⁸

As discussed in Chapter 1, the economic conditions in European countries are still fragile, despite some improvements in the first half of 2013.

2.1. Market growth

The weak macroeconomic environment continues to constrain sales and pushes insurers to look outside their national boundaries. With several years of weak GDP growth in Europe and globally, life and non-life insurers continue to report subdued sales, as a result of consumers' reduced purchasing power. The pressure on the sale of insurance policies is particularly pronounced in countries where household wealth and income has been reduced. Figure 8 illustrates this development between 2009 and 2012 for life and non-life companies.

Figure 3 Change in GWP in life and non-life (y-axis, in %) vs. nominal GDP (x-axis, in %) between 2009 and 2012



Source: EIOPA, EUROSTAT

Note: Graph covers countries with GWP in life and non-life (incl. composites) of at least EUR 5 billion

Therefore, most large European insurers have been looking for new sources of revenues in the emerging markets of Latin America and Asia ex Japan. Whether this foreign expansion will be profitable in the long-term is too early to accurately assess, but it certainly adds new distribution arrangements and the ability to widen the product portfolio in markets that are relatively under-penetrated. Moreover, such a development poses new challenges in terms of risk management, new product developments and group supervision.

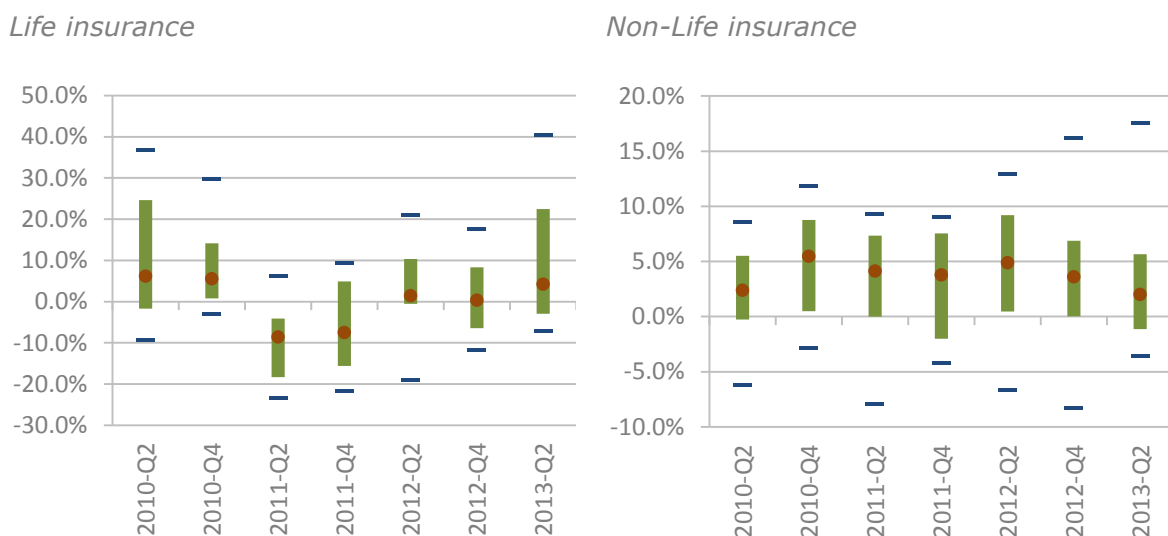
⁸ Note the data coverage and disclaimer note given in the Appendix which applies to the data presented in this chapter.

This environment goes together with persistent high unemployment and weak consumer confidence in many EU economies, while tax increases due to fiscal consolidations are also taking place in 2013 in some regions. This will weaken the financial condition of households even further. In fact, increased taxation on premiums or reduced tax incentives for long-term life and savings products contributing to declining premium growth were observed in several EU countries.

Weak economic confidence also leads households to postpone long-term investment and savings decisions. Therefore, short-term banking products will most likely continue to attract consumers, at the expense of life insurance products. This issue might be especially acute in countries where the banking channel is a major distribution channel for insurance products. In addition, there is a reported trend of some households withdrawing money from their policies to meet consumption needs. The effect of this on lapses, however, is not yet evident.

The latest 2013-Q2 figures show that the majority of large European life and non-life insurers report positive growth in premiums (see Figure 9).

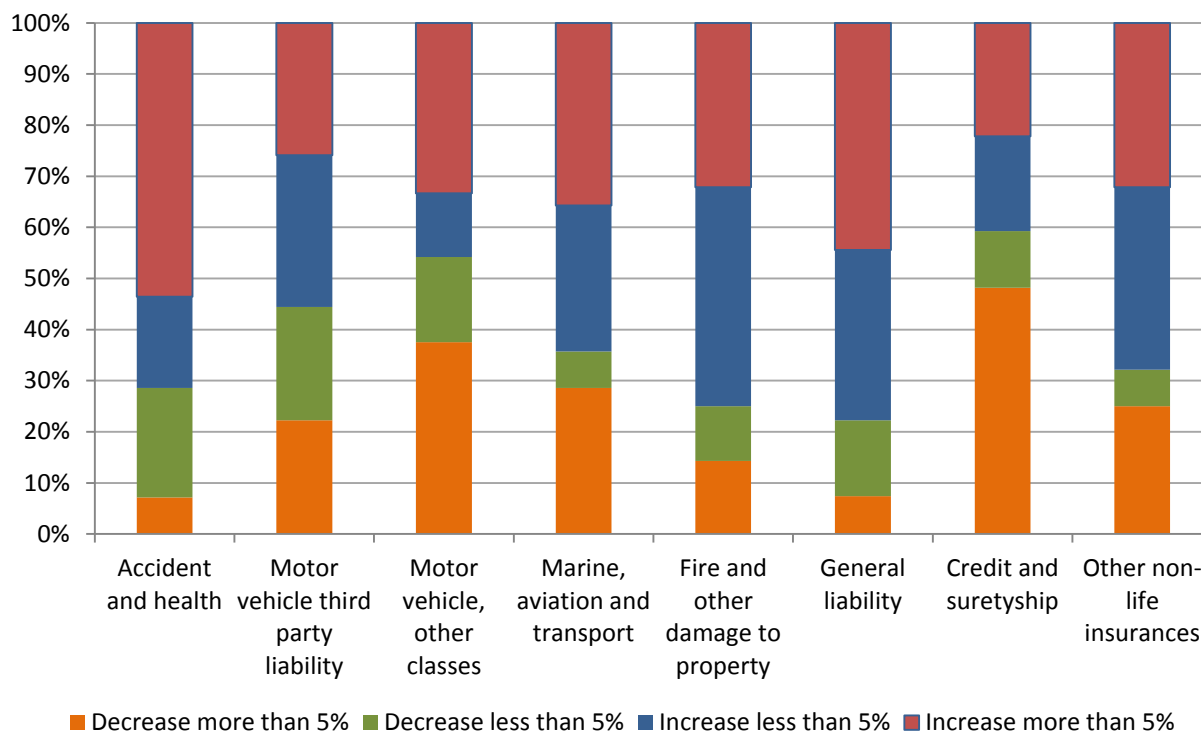
Figure 9: Year on year growth in GWP, non-linked. Median, interquartile range and 10th and 90th percentile



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

For non-life business, motor (except third party liability), credit and surety ship seem to be the most vulnerable business lines, with premiums declining in more than half of the countries surveyed. In the latter, the decline is more than 5% in almost 50% of the countries. Fire and damage and general liability seem much more robust, with growth in more than 70% of the countries. Accident and health is also growing in a large number of countries as personal accident is often sold in addition to property insurance.

Figure 11: Share of countries reporting decrease or increase in GWP between 2011 and 2012.

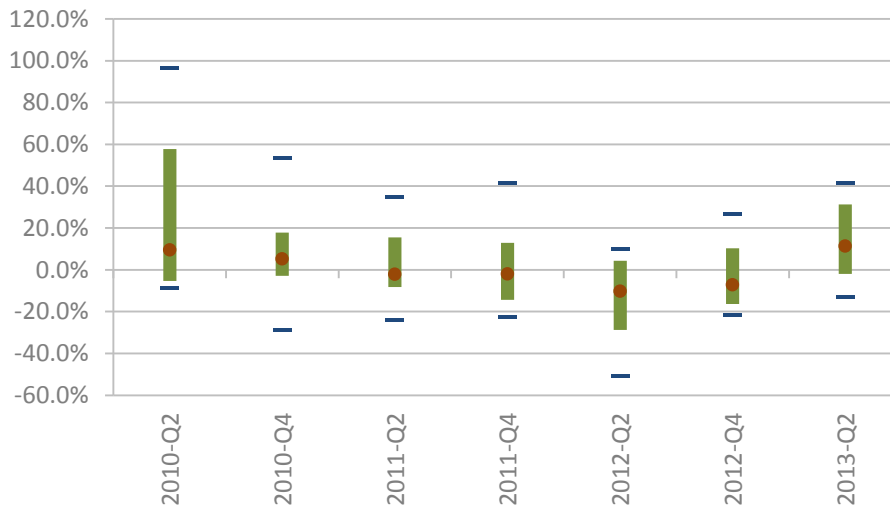


Source: EIOPA (sample based on 30 EU/ EEA countries)

Undertakings are retreating from guaranteed products in traditional non-linked life insurance. In response to volatile equity markets and low interest rates, life insurers increasingly continue to pull back on providing long-term investment guarantees to consumers. In the short-term, this reduces the attractiveness of some products and constrains sales. Many insurers are lowering guaranteed returns, such as dialling back guarantees on sales of traditional products that provide high guaranteed annual returns.

Insurers will hence focus on unit-linked products. While decreasing the number of guaranteed products, many insurers now increasingly focus on unit-linked products and shift investment risks to consumers. In return these kinds of products provide higher margins if equity market perform favourably. While traditional non-linked business was hit hardest in 2011, the impact on unit-linked business largely materialised a year later (Figure 12). However, data for 2013-Q3 clearly indicates that growth has picked up in unit-linked sales for the majority of the sample of large European insurers, partly due to the recovery in financial markets.

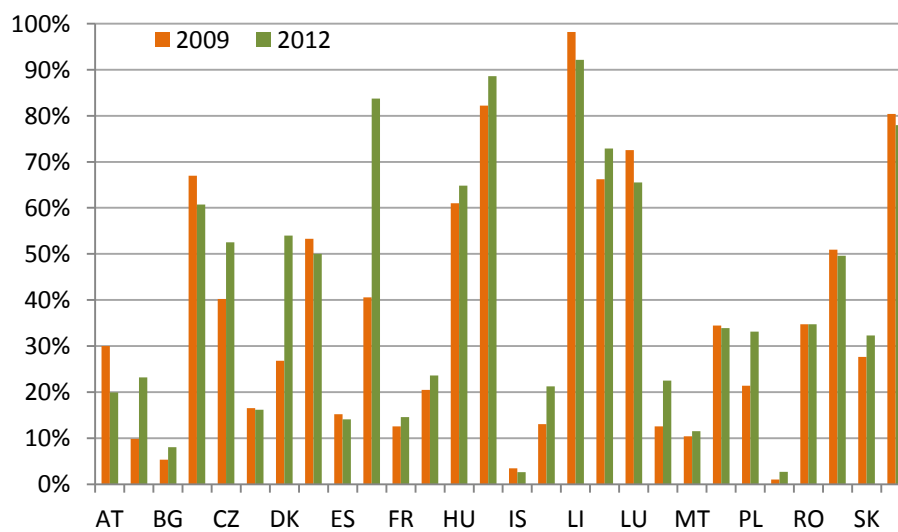
Figure 12 Year on year growth GWP –Life, unit-linked. Median, interquartile range and 10th and 90th percentile



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

Share of unit-linked business is increasing in many countries, but development is far from uniform. Looking beyond the sample of the largest European insurance groups and focusing on market-wide data instead, Figure 13 shows the share of GWP in unit-linked business compared to traditional life business between 2009 and 2012. Overall, in the European market, the share of premiums in unit-linked products has increased slightly from 37% to 39%. However, unit-linked sales are not increasing in all European markets. Indeed, several national supervisory authorities report that the product mix still remains fairly stable despite efforts to promote unit-linked business.

Figure 13 Share of GWP in unit-linked businesses 2009 and 2012



Source: EIOPA

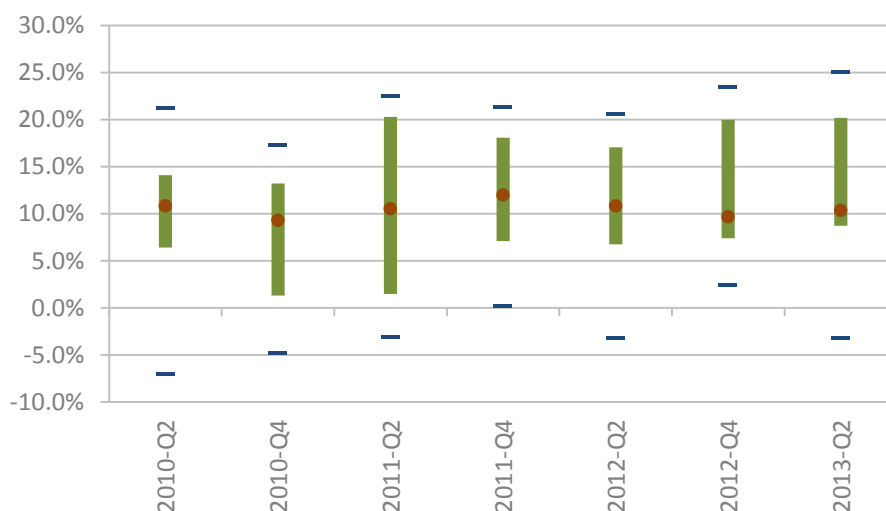
2.2. Profitability

A deteriorating sovereign environment would challenge insurers in sourcing revenues from domestic customers, due to the reduced purchasing power, which in turn will negatively affect insurers' profitability.

Profitability for non-life insurers is still relatively robust. The overall market is currently still producing robust return on equity (ROE), although the level is declining for most companies (from 10.8% in 2012 to 10.3% in 2013 for the median company - see Figure 14). The results for the lower percentile on the other hand already show a different picture. In fact, the low yield environment is pressurising the investment income of non-life companies and will put further pressure on future ROE levels.

Many companies in the market have already taken steps to further improve their operational efficiency by various cost-cutting measures. The scope for supporting earning levels from future efficiency gains is therefore less pronounced than in recent years.

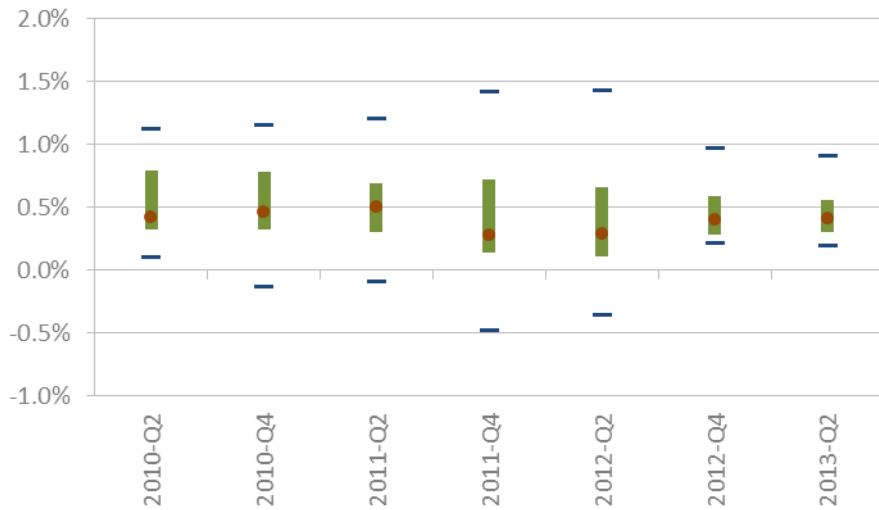
Figure 14 Return on Equity non-life. Median, interquartile range and 10th and 90th percentile



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

ROA for life companies did not drop in 2013. Improvements in efficiency have prevented the decline in return on assets (ROA). In fact the median ROA remained unchanged in 2013 (0.4%); ROA in the lowest percentile, with the worst performers, reported also an unchanged return of 0.2% in 2013 (Figure 15).

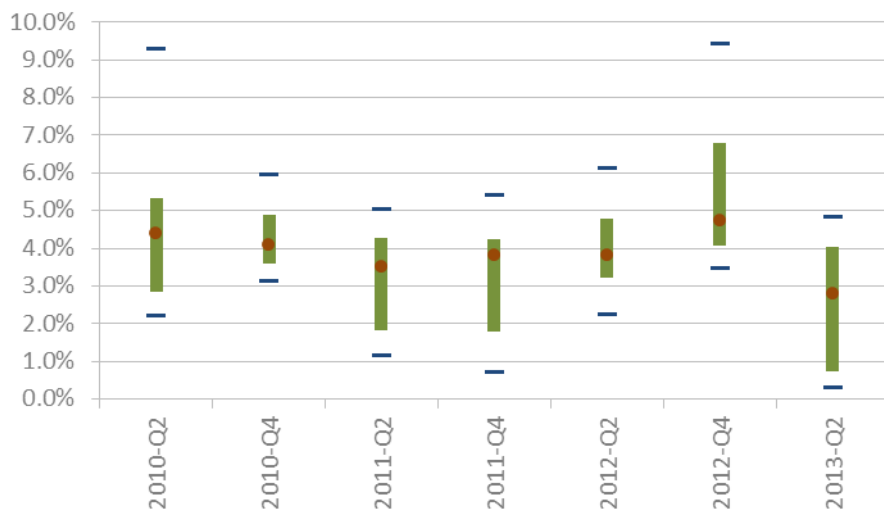
Figure 15 Return on Assets life. Median, interquartile range and 10th and 90th percentile



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

However, low interest returns already weigh on insurers' profitability, especially for life insurers. Indeed, investment returns are converging towards guaranteed minimums, sometimes being even lower. In 2013 investment returns dropped (from 4.8% in 2012 to 2.8% in 2013 for the median company). The fall in returns is even higher in the 10th percentile (drop from 3.5% in 2012 to 0.3% in 2013) and the 90th percentile (fall from 9.4% in 2012 to 4.8% in 2013).

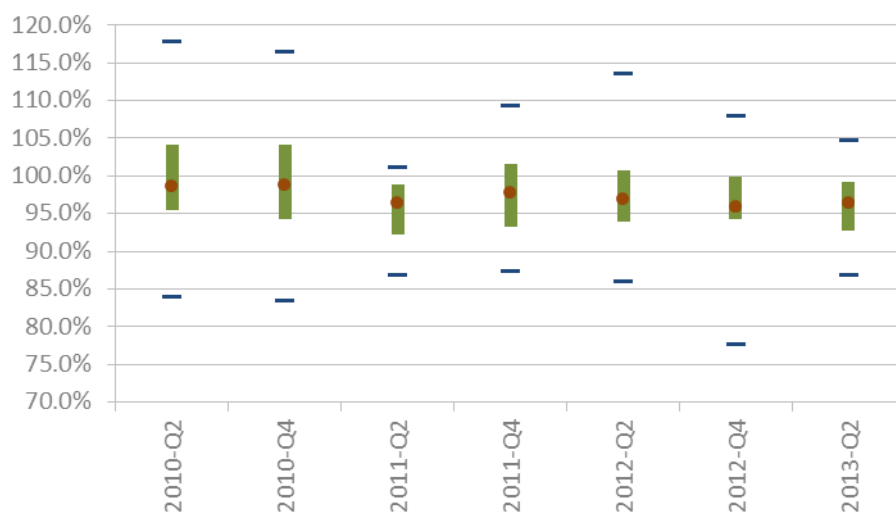
Figure 16 Investment Returns. Median, interquartile range and 10th and 90th percentile



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

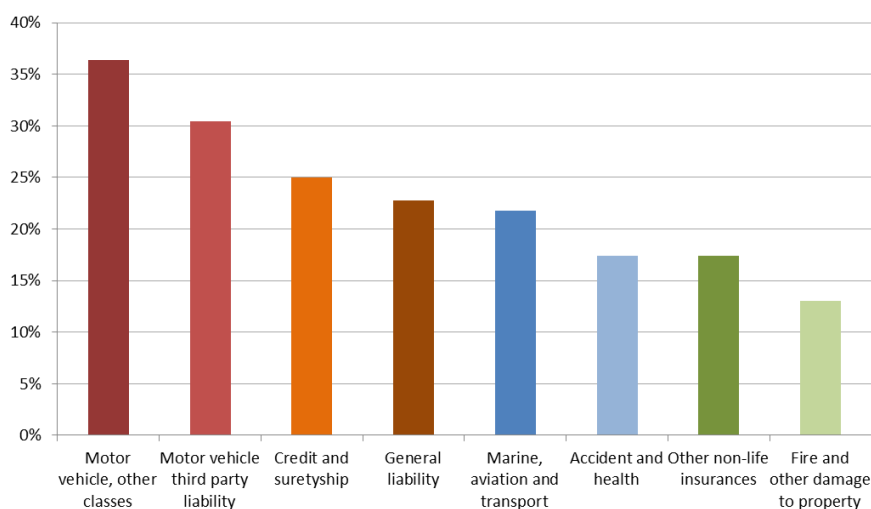
For most non-life insurers, investment returns were mitigated by profitable underwriting activities in some business lines. This is reflected by the overall combined ratio of the non-life insurance sector, which stood below 100% for most companies (at 96.4% in 2013 compared to 95.9% in 2012 for the median company – see Figure 17). During 2013 insurance companies reported a general rise in net claims, somewhat dampening the result in comparison to the previous year. This resulted from huge weather losses within Europe. Some groups, however, also report underwriting losses, owing to unprofitable motor business or other unprofitable business lines (Figure 18).

Figure 17 Combined Ratios – Non-life. Median, interquartile range and 10th and 90th percentile.



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

Figure 18: Share of countries where business lines of insurers are showing losses



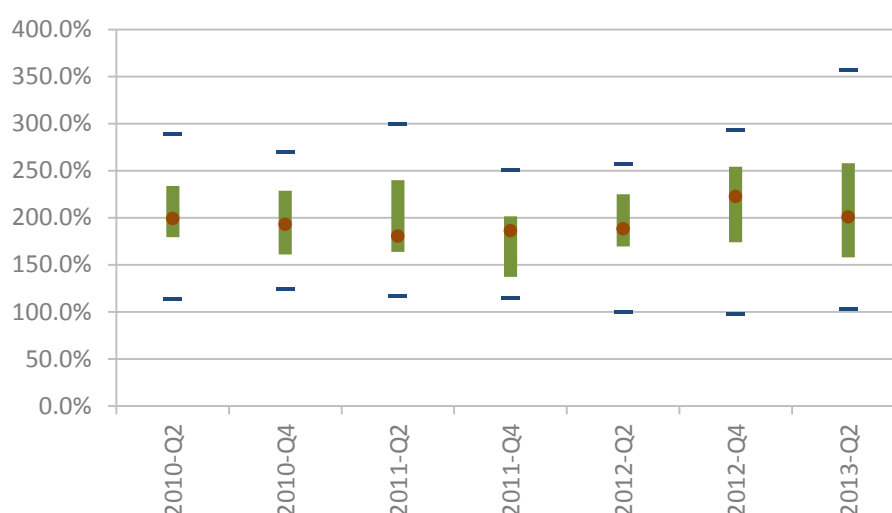
Source: EIOPA (sample based on 30 EU/ EEA countries)

2.3. Solvency

Solvency I levels for life and non-life are dropping, but remain well above the 100% minimum requirement. On a Solvency I basis, the companies all have very healthy solvency levels which help to create buffers to weather economic pressures in the Eurozone or challenging financial market conditions.

The average Solvency I ratio for the life insurers is around 200% at the end of 2013 compared to 222% and 186% in 2012 and 2011 respectively. Given the prospects of lower growth for some insurance companies and likely further declines in investment returns, Solvency I levels for a few insurers fell to a low 100%, albeit only in some markets. Figure 19 below also shows that some life companies report Solvency I ratios over 300%.

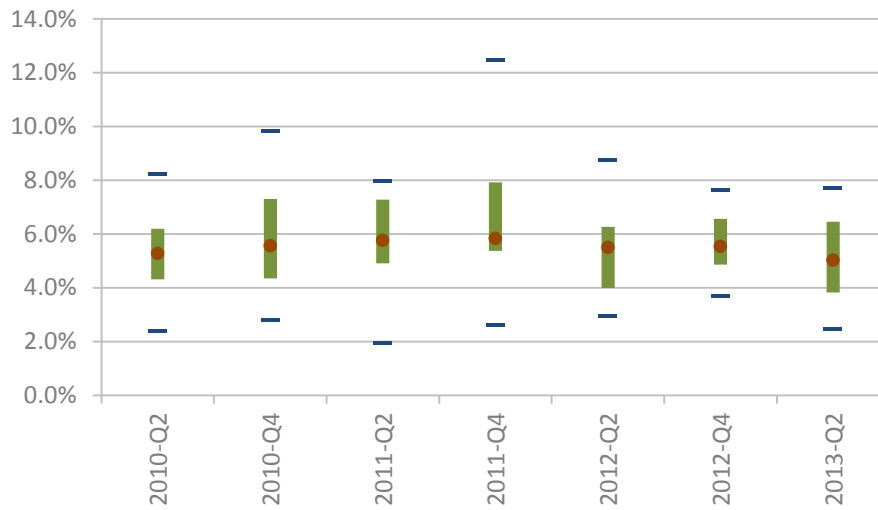
Figure 19 Change in Solvency I ratio for the life insurers



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

Life lapses are currently stabilising. Figure 20 indicates that lapse rates overall have stabilised and that the slight downward trend noted in the previous report has continued in 2013; in line with some signs of improvement in recent EU and global economic sentiment data (see section 1.2). Lapses which might trigger additional future capital needs decreased slightly in 2012 (from 5.5% to 5% for the median company) showing that the weak macroeconomic climate did not yet have an effect on policyholders' confidence in insurers. Some companies, however, report lapses close to 6%. Many life insurance contracts have minimal or zero surrender penalties. In view of this, insurers need to maintain an adequate level of liquidity to meet those policyholders' obligations promptly.

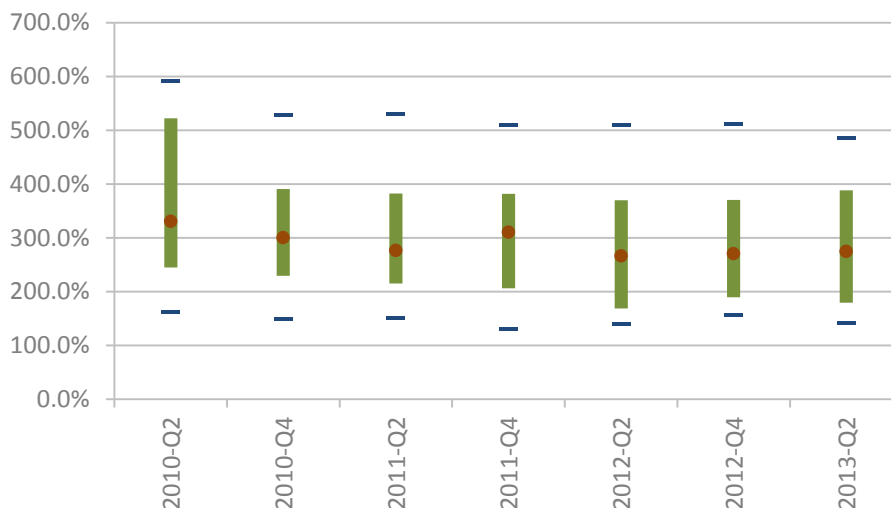
Figure 20 Lapse rates – Life. Median, interquartile range and 10th and 90th percentile



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

Solvency I levels remained nearly unchanged among non-life insurers whose business is generally associated with higher risks. The median Solvency I ratio in 2013 remained nearly unchanged at 275% compared to 270% at the end of 2012. Insurers such as e.g. annuity providers with exposure to market risks typically report much higher solvency I levels.

Figure 21 Solvency Ratio – non-life



Source: EIOPA (sample based on 30 large insurance groups in EU and Switzerland)

The implementation of Solvency II will drive changes in the solvency position of insurers. Although not yet in force, insurers will be required to take account of all types of risk to which they are exposed to promoting a stronger

risk management culture. Solvency II would also introduce market valuation for determination of own funds as well as quantification of the risks, which will require many insurers to hold more capital for certain risks.

3. The global reinsurance sector⁹

3.1. Market growth

The sector continued its robust growth in 2012. From 2011 to 2012, the global reinsurers companies grew their gross premiums earned by 5.97% (to USD 114bn). A reduced level of overall premium income is anticipated in the years to come as reinsurance supply is expected to exceed demand.

Major loss events from natural catastrophes in the first half of 2013 compare favourably with previous years. After record overall losses (USD 400bn, insured losses of USD 119bn) in 2011 the reinsurance industry bounced back in 2012. This trend continued in the first half of 2013 (overall losses USD 45bn, insured losses of USD 13bn). These results are in line with the average of the last 10 years (overall losses of USD 85bn, insured losses of USD 22bn). However, the most relevant is the small number of fatalities recorded (4.000), far lower than the 30-year average (30.000, 10-year average of 53.000).

Table 1: The 6 largest natural catastrophes (by insured losses) in the first 9 months of 2013

Date	Event	Region	Fatalities	Overall losses USD bn	Insured losses USD bn
30.5-15.6.2013	Floods	Central Europe	22	18.0*	~4.0
18-20.5.2013	Thunderstorms, Tornado	USA	26	3.1	1.6
18-19.3.2013	Thunderstorms	USA	2	2.0	1.4
June 2013	Floods	Canada	3	>3.0*	>1.0
21-31.1.2013	Floods	Australia	6	2.0	1.1
13-20.9.2013	Hurricanes	Mexico	192	5.7	1.0

Source: Munich Re, NatCatSERVICE and AON Benfield, September 2013 Global Catastrophe Recap/*loss estimation still in progress.

The first nine months of 2013 were dominated by floods causing around 47% of the worldwide overall losses and 45% of the insured losses. Central Europe (Germany, Austria, Czech Republic, Slovakia, and Hungary) was massively affected by inland flooding leading to an increase of the European amount of the worldwide insured losses to 27% from a long-term average of 16%.¹⁰ The

⁹ Note the data coverage and disclaimer note given in the Appendix which applies to the data presented in this chapter.

¹⁰ European floods insured losses totalled USD 5.3bn (EUR 4bn USD 5.3bn) and economic damage EUR 17bn (USD 22bn) – see AON Benfield: September 2013 Global Catastrophe Recap, page 3.

flooding in Central Europe was by far the most single severe event since the Elbe flooding in 2002 (overall economic loss of USD 16.5bn, USD 3.4bn insured).

The most significant damages in Central Europe were sustained in Germany, which was hit by severe weather and flooding (insured loss losses of EUR 3bn/USD 4bn and economic losses of EUR 12bn/USD 16bn). Further severe floods also occurred in Canada, Australia, China and Russia's Far East in the first half of this year. At the end of September 2013 two severe hurricanes in Mexico caused extensive damage and heavy rainfall spawned massive flooding and landslides.

3.2. Profitability

Profitability for the reinsurance sector has been relatively high, but remains under pressure due to the low yield environment. In comparison to the previous year, the overall combined ratio for reinsurers monitored by AON Benfield improved to an average of 89% for the first half of 2013 (from 90.7% in 2012). Their return on equity (ROE) was in line with 2012 at 12%, which compares favourably with the 10.2% five year average.

Underwriting results in 2012 were positive, largely as a result of an average catastrophe year. They benefitted from increased prior year reserve releases, although the level seems to have been lowered when compared with previous years. Moreover, considering the nature of their business, reinsurers tend to have relatively strong underwriting risk controls, which also typically have a positive effect on underwriting results.

Investment yields on the other hand declined in the first half of 2013 due to historically low interest rates. For the upcoming January 2014 renewals season, the expectation is that supply of reinsurance capacity will continue to exceed the demand of insurers and that competitive markets as well as low investment returns will force the insurers to be increasingly price-sensitive. For that reason reinsurers' profitability is foreseen to remain under pressure. Achieving risk-adequate prices at the January 2014 renewals is crucial for the reinsurance companies in order to underpin their solvency.

3.3. Solvency

Solvency I capital levels of reinsurers tend to be rather high and global reinsurer capital increased to an all-time high.¹¹ Thus far, overall, the reinsurance market saw flat to modestly softening reinsurance rates in 2013. Considerable rate declines could be observed in the catastrophe lines of

¹¹ See Historical Capital Adequacy at peer group level in "Pricing, profitability, and capital excess", September 5, 2013

business, especially for non-proportional business,¹² as a very benign catastrophe activity so far coincided with a higher inflow of capital into the reinsurance sector. Global reinsurer capital reached its historically highest level of USD 510bn in the first six months of 2013, compared to USD 505bn in 2012 and USD 455bn in 2011.¹³

In the face of weak returns from corporate and government bonds, the reinsurance market saw further enhanced capital-inflow from non-traditional sources, such as pension funds or hedge funds. Against the background of the ongoing finance and debt crisis the diversifying nature of catastrophe-exposed business attracts investors who are searching for safe investments. Low corporate and sovereign debt yields are likely to continue to produce more capacity for catastrophe and other reinsured risks with a depressing effect on the rates. While the non-traditional capital is mainly going into the non-proportional catastrophe business, this new capital seems to spill over into other reinsurance lines.

Continued lower catastrophe losses (USD 20bn against USD 22.5bn in 2012) and higher primary premiums also resulted in growth in insurer capital in Q1 2013, increasing by 2% from year end 2012.¹⁴ This process is expected to continue in the upcoming year. The excess levels of capital and reinsurance supply in combination with the additional capital inflows expected over the next five years (USD 100bn¹⁵) are driving reinsurers to increase their capital levels.

As a result, it looks like excess capital in the traditional reinsurance industry will continue to put downward pressure on pricing, at least prevent any significant increases. This has already been evident in the first half of 2013, with rates not increasing significantly. Following floods and hail storms in June and July 2013 in Europe, prices in 2013 would need to reflect loss claims on the other hand, much of which were already passed on to reinsurers. However, a forecast from Willis Re - assuming no more big catastrophes strikes before the end of the year, when the annual reinsurance policies for 2014 are renewed- predicts an average 5 to 10 per cent rate reduction on typical property catastrophe reinsurance in Europe, while brokers even forecast a steeper fall.¹⁶

¹² There are two main types of treaty reinsurance, proportional and non-proportional. Under proportional reinsurance, the reinsurer's share of the risk is defined for each separate policy, while under non-proportional reinsurance the reinsurer's liability is based on the aggregate claims incurred by the ceding office.

¹³ See AON Benfield: Reinsurance Market Outlook September 2013, page 4.

¹⁴ See AON Benfield: Reinsurance Market Outlook June and July 2013 update, page 2.

¹⁵ See AON Benfield: Reinsurance Market Outlook September 2013, page 3.

¹⁶ See "Primary insurers push for price cuts", Financial Times, October 21, 2013

3.4. Insurance-Linked Securities

Insurance-Linked Securities (ILS) reached its highest levels for both new issuance and outstanding volumes since 2007, with large capital inflows across the sector. Insurers were increasing the issuances of catastrophe bonds and expand the use of sidecars in order to absorb underwriting capacity.

Sidecar vehicles are often established by traditional reinsurers as a means to tap into the external capacity offered by hedge funds, investment banks, private equity and other opportunistic investors. The new record level of catastrophe bond issuance highlights the recent expansion of the ILS market. Catastrophe bonds allow reinsurers to transfer a portion of their catastrophe risks to the capital markets through securities purchased by investors. Due to the persistent low interest rate environment, however, catastrophe bonds currently don't offer yields as high as in the past, albeit the level is still relatively attractive, well above other fixed-income instruments. For example, spreads were down between 30% and 45% in the first half of 2013, compared to the last quarter of 2012¹⁷. The natural catastrophe rates have experienced a downward trend in 2013 but are expected to stabilise next year.

Although the ILS market is still a niche in comparison with the overall securities market and small in comparison with the overall reinsurance market, it is of significant size in comparison with the property-catastrophe reinsurance market. It'll be interesting to see how these vehicles will develop in size and perform when market conditions improve.

¹⁷ Insurance-Linked Securities, August 2013, AON Benfield

4. The European pension fund sector¹⁸

Regulatory changes are constantly taking place in the pensions sphere across Europe. Several of these are related to the combined challenges of low interest rates and increased longevity as well as the increasing pension awareness promoted by governments. Overall the European occupational pension fund sector has been stable in 2012 compared to the previous year.

The number of occupational pension funds is on the decline due to an increased number of mergers, however membership slightly increased. Investment allocation across the sector has been stable and asset returns significantly higher than in the previous year. Finally, cover ratios were reported to be sufficiently high.

4.1. Market growth

Total assets owed by occupational pension funds increased by 13% in 2012 (to 2.7 trillion EUR). In 2011 the percentage total asset increase was only 6%. The European occupational pensions sector is dominated by the UK and the Netherlands which together account for more than 80 per cent of total assets (see Table 3). The differences between countries generally reflect the relative share of private and public provision of pensions, and to what degree schemes are funded.

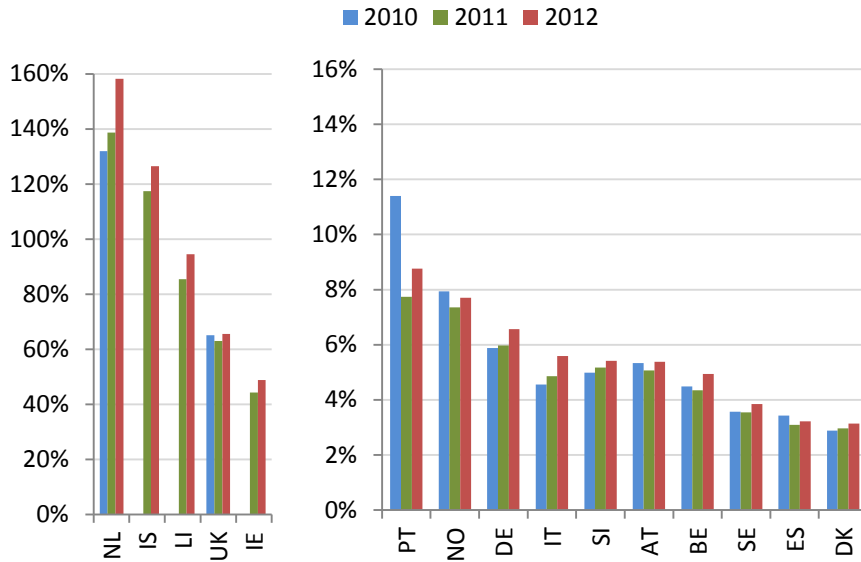
Table 3 Total assets per country as a % share of European total assets (2012).

UK	NL	DE	IT	IE	ES	NO	BE	AT	SE	PT	IS
46.63%	34.91%	6.44%	3.23%	2.95%	1.22%	1.10%	0.68%	0.61%	0.58%	0.53%	0.49%
DK	SI	SK	PL	LI	LU	LV	RO	GR	HU	BG	TOTAL
0.28%	0.07%	0.05%	0.02%	0.15%	0.04%	0.01%	0.005%	0.003%	0.0001%	0.0001%	100.00%

The penetration rate in the occupational pension fund sector increased by 3% in 2012. The penetration rate is calculated as the total size of assets over GDP and gives an indication of the relative wealth accumulated by the sector. In the majority of the countries covered, penetration rates slightly increased between 2011 and 2012 (Figure 22).

¹⁸ Note the data coverage and disclaimer note given in the Appendix which applies to the data presented in this chapter. This section generally concerns IORPs. However, some members also report on general developments in the pension fund sector, which may also be reflected in this chapter.

Figure 22 Penetration rates (Total assets as % of GDP)



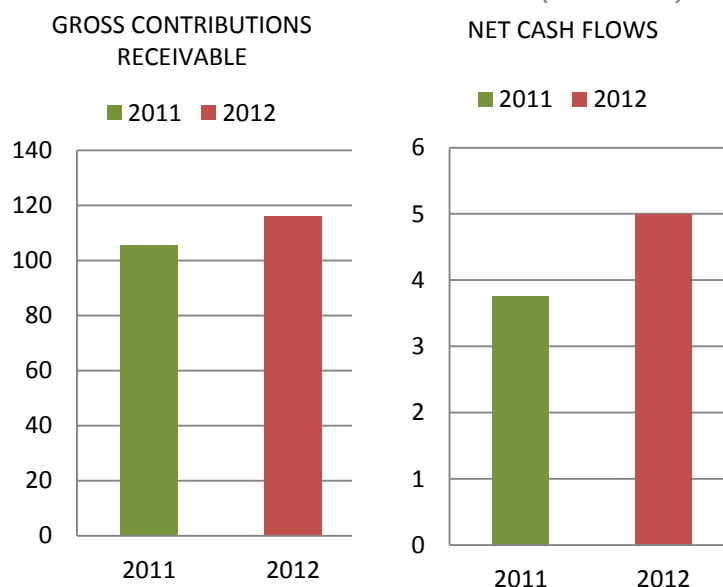
Source: EIOPA

Note: For BG, GR, HU, LU, LV, PL, RO and SK figures are less than 2%. For the UK figures relate to DB and hybrid schemes only.

Gross contributions receivable and net cash flows¹⁹ increased significantly in 2012 (10% and 33% respectively). These increases were mainly driven by the UK and the NL whereas for the rest of the countries the results were mixed (Figure 23).

¹⁹ Net cash flow is defined as: Total Gross contributions receivable – Reinsurance contributions ceded – Total gross benefits payable + Reinsurance benefits received.

Figure 23: Net cash flows over total assets (in EURbn)



Source: EIOPA

Defined benefit (DB) schemes still dominate, but there is a clear trend towards defined contribution schemes (DC) in many countries.

Only initial contributions are generally guaranteed in DC schemes, while in more traditional DB schemes, pension levels are guaranteed irrespective of market developments. Therefore, under DC schemes, members and beneficiaries bear more risks in terms of the level of the final pension payments, while in DB schemes the risk lies with the funds or the sponsors. DB schemes have struggled to obtain returns in line with the guaranteed levels, and have therefore been under pressure. As a consequence, many of them are closed to new members or have been replaced by DC schemes (often managed by the same IORP or transferred to an insurance company), which can expose members and beneficiaries to increased uncertainty about future income as they are more directly exposed to investment risks. Pension rights can also be more vulnerable to market fluctuations closer to retirement age.

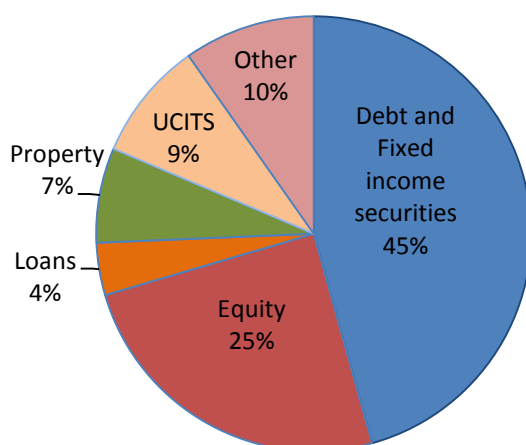
In order to increase the available options and in order to better address social partners' preferences when facing current challenges new types of schemes have emerged. These schemes are usually a combination of DB and DC (e.g. Defined Ambition, Hybrid Schemes) offering the possibility to install additional guarantees on the available schemes.

The number of IORPS is decreasing across Europe. Many countries reported a declining number of occupational pension funds. In several countries obligations of pension funds have been transferred to insurance companies or consolidated with other pension funds. Overall, this process increases the average membership in individual schemes.

4.2. Profitability and funding

Investment allocation of pension funds has not significantly changed over the last year. Overall, debt and fixed income securities dominate. Equity generally represents a much higher share of investments in the pension fund sector than in the insurance sector (Figure 24). Some countries experience a slight shift in the investments of DB schemes towards fixed income investments, reflecting the desire to reduce deficit volatility as these schemes mature. Overall, however, these changes are not of a large enough scale to be visible in the European aggregate. In most cases, the investment allocation for 2011-2012 has not significantly changed. This is often a reflection of strict legal or contractual obligations for pension funds to maintain a certain asset mix.

Figure 24: Investment Allocation Across European pension funds for 2012.

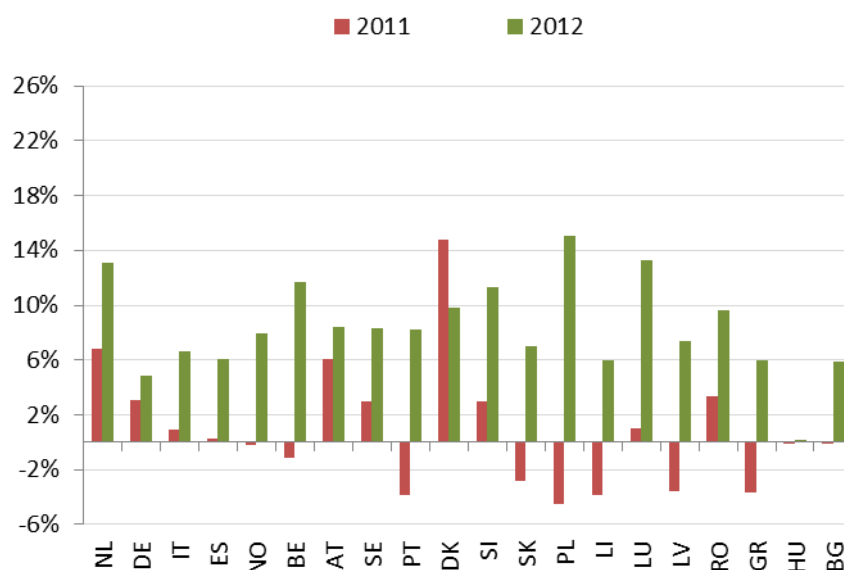


Source: EIOPA

Note: The chart is based on data from 22 countries (the UK, which encompasses about 47% of total assets, is not included)

Pension funds across Europe reported higher returns on assets in 2012 compared to 2011. This was due to double-digit stock market returns in 2012 and a further decline in long-term interest rates, which raised the market value of fixed-income portfolios. In all countries the total assets returns were strengthened quite substantially. The average rate of return improved remarkably, from +1% in 2011 to +8% in 2012 (Figure 25).

Figure 25 Rate of return of total assets

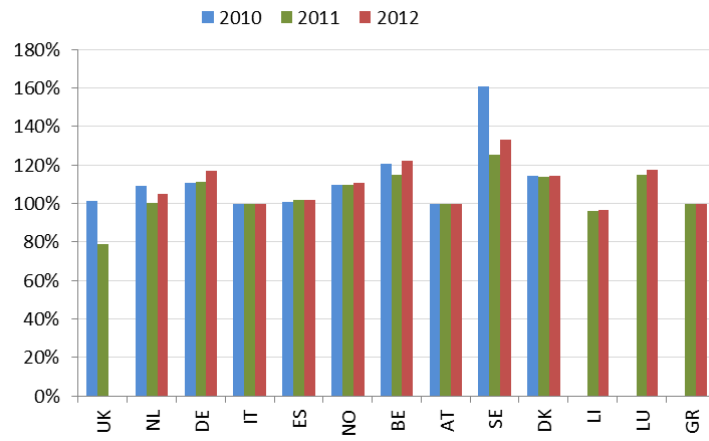


Source: EIOPA

Most national authorities report that cover ratios are sufficiently high in 2012 (Figure 26). However, the low interest rate environment prevailing in many European countries makes it more difficult for DB schemes to meet the guaranteed return. This could also eventually affect the sponsor of the scheme, e.g. the employer. To some extent, pension funds can compensate for low yields by increasing the annual interest premium. There is, however, a risk that premium increases will reinforce the current trend of employers in the private sector closing down their defined benefit plans.

Moreover, due to different calculation methods and legislation in the countries concerned, the reported cover ratios are not directly comparable. In order to calculate cover ratios countries use different methods of discounting. Moreover, countries may require unlimited sponsor support. Capital buffers and recovery plans may be in place. Consequently guarantees can be supported, even in case of adverse developments without having to move to benefit cuts.

Figure 26 Average funding levels



Source: EIOPA

5. Risk assessment

This chapter aims to assess those risks which were identified in the first chapter and further elaborated in the next parts on insurance, reinsurance and occupational pensions.

5.1. Qualitative risk assessment

Qualitative risk assessment is an important part of the overall financial stability framework. EIOPA conducts regular bottom-up surveys among national supervisors to rank the key risks to financial stability for the insurance, as well as for the occupational pension sector. This chapter summarizes the main findings revealed from the survey.

Figure A Risk assessment for the insurance sector

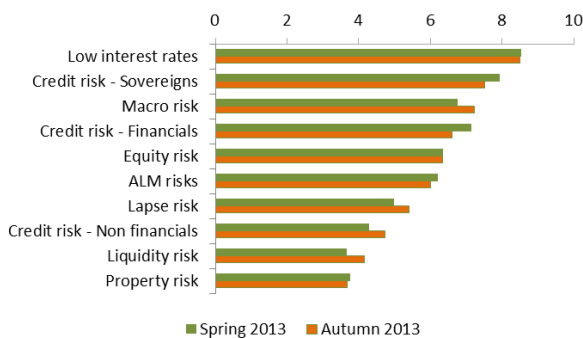
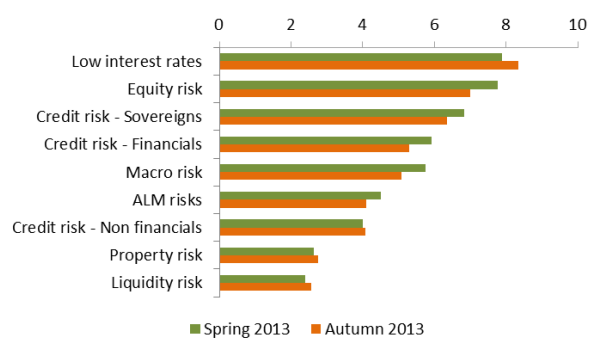


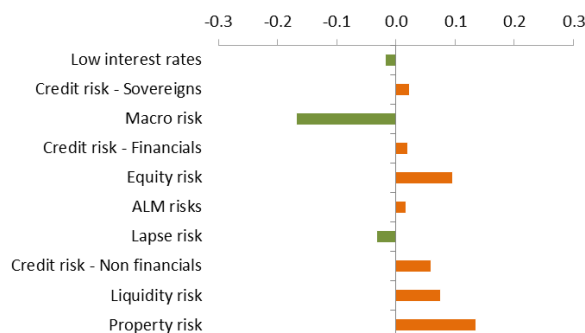
Figure B Risk assessment for the pension funds sector



Source: EIOPA

Note: Risks are ranked according to probability of materialisation (from 1 indicating low probability to 4 indicating high probability) and the impact (1 indicating low impact and 4 indicating high impact). The figure shows the aggregation (i.e. probability times impact) of the average scores assigned to each risk.

Figure C Supervisory risk assessment for insurance and pension funds – expected future development



Source: EIOPA

Note: EIOPA members indicated, for each risk, their expectation for the future development of these risks. Scores were provided in the range -2 indicating considerable decrease and +2 indicating considerable increase.

Macro risks and risks from low interest rates

The survey confirmed that risks stemming from a prolonged period of low interest rates are the most important risks that the insurance and pension funds sectors are currently facing. These risks have been identified as highest both in terms of probability of materialisation and in terms of impact (see Figure A and B on the previous page). Although the continued period of low interest rates is challenging for life insurers who struggle to design profitable products that consumers want at an affordable price, non-life companies are also exposed to interest rate risk.

Slight increases in high-rated long term government bond yields can be observed, but the rates are still at historically low levels. As noted in Chapter 1, recent slight increases in European SWAP rates may signal the bottoming-out of interest rates. However, persisting low inflation in the Eurozone prompted the European Central Bank (ECB) recently to further cut their policy rate to the historical minimum (0.25%) and it is expected to be maintained at a very low level. So-called forward guidance by central banks such as The Bank of England, which promises to maintain a highly stimulatory stance of monetary policy until economic slack has been substantially reduced, reinforce the expectation that rates will not rise in the short term. However, in line with the slightly improved macroeconomic sentiment, the survey indicates a small decline in this risk (as seen in Figure C) in the coming 3 to 6 months.

Risks stemming from the low interest rate environment are closely linked to general macro risks, as low policy rates are a response to weak macroeconomic conditions. A deteriorating business cycle has a negative impact on insurance and pension fund business, e.g. via lower demand, higher lapse rates in insurance, higher occurrence of insurance fraud and lower asset prices. Even though there are some signs of improvement in economic conditions, the survey points out the high level of uncertainty regarding the economic outlook. It reveals decreases in life insurance premiums as tax increases, increased competition and reduced household income make policyholders more sensitive to premiums rates.

Macro risks are also important in the pension fund sector. As economic activity declines and in some cases tight fiscal policies restrict economic activity, unemployment increases and discretionary income available for long term saving declines. Moreover, the trend of defined benefit plans being closed and replaced by defined contribution plans continues in several jurisdictions (as noted in the Spring Financial Stability Report 2013).

Developments outside the EU impact macro risks as some insurers operate globally. For instance, in the past months, many European countries have experienced an improvement in local bond and equity markets, while new tensions have risen as a consequence of international developments such as the uncertainty surrounding US fiscal policy. As European insurers continue to

search for growth opportunities outside Europe, developments in emerging markets will increasingly affect the stability of the European insurance market.

Credit risks

Credit risks from exposures towards sovereigns and financial institutions remain key risks for the insurance and pension fund sectors.

Although the survey suggests that these risks have decreased slightly as credit spreads and CDS spreads have declined, lower spreads may partly be an artefact of excess liquidity. This would raise the risk of a future reassessment of risk premia. As a result, even if near-term risks to the EU financial system have generally abated since the Spring 2013 survey, the exposures of insurers to sovereign risk and towards the financial sector continue to be closely monitored.

In the eurozone, improved conditions have particularly been noted by authorities in countries which experienced dramatically elevated sovereign yields over the last years.

In several non-eurozone countries not affected by extensive sovereign downgrades, sovereign credit risk is considered less of a concern. Locally denominated liabilities are generally backed by investments in local government bonds. Some insurers, however, are also exposed to sovereign debt issued by another country, often US treasury bonds. The recent uncertainty in the US regarding the debt ceiling therefore raises concerns as any downgrade would have negative price effects.

Overall, credit risk from the financial sector is also seen to be somewhat reduced.

This is partly due to liquidity support by the ECB to the banking sector, which has affected credit spreads. Although exposure to the financial sector is lower than sovereign exposure, financial bonds do account for a considerable share of insurers investments. In this context, it is also important to consider the sovereign-bank link which clearly shows that exposures to these sectors individually may be correlated to a certain extent. The planned asset-quality review to be carried out by the ECB may shed further clarity on the potential for hidden losses, and help insurers more accurately assess the credit quality of their portfolio.

Credit risk from the corporate non-financial sector is seen as less of a concern due to its smaller share in insurers' investments.

However, low returns on higher-rated government debt have contributed to increasing flows into corporate debt markets. Yields and spreads have witnessed a compression, raising concerns about a potential under-pricing of risk and the possibility of a subsequent re-assessment of the risk premia demanded by investors. Moreover, some insurers invest in corporate bonds issued by foreign corporates and would therefore be exposed to related credit risk and in some cases to unhedged foreign exchange rate risks as well.

Equity risks

Equity risks are ranked much higher in the pension sector than in the insurance sector. The reason for the higher risk ranking for pension funds is

the relatively high equity exposure of many pension funds. High equity holdings increase the effect any materialisation of this risk might have on the local market. For instance, pension funds in some European markets may have significant share of their portfolios in equity – although this figure hides a very large variation among countries. Overall, however, the survey results indicate that recent growth in equity prices may not have been matched by similar improvements in economic fundamentals, increasing the risk of negative corrections over the next 3 to 6 months. Top-down stress tests on equity are seen as a useful tool to monitor this risk to pension funds' balance sheets.

The survey suggests that the equity exposures of insurers remain low.

The potential impact of equity price falls is therefore often more limited. However, external factors such as changes in central bank quantitative easing programs and slower growth in emerging markets could have a negative impact on equity prices. Moreover, variable annuity (VA) writers are exposed to risks stemming from volatility in equity returns in generating guaranteed rates of return, as well as significant hedging costs.

Other risks

Overall liquidity risks are seen to be increasing, but remain a non-critical risk in both sectors. The survey points out that liquidity risks are fairly low as investment portfolios are generally highly liquid. However, some insurers hold investments that are not actively traded, which could limit their ability to quickly obtain cash. Moreover, it is possible that a lapse shock would force an insurer to sell assets below book value. An overall decrease in the use of liquidity swaps has also been observed, implying that some insurers are keeping more liquid assets on their own books.

Severe property price falls would impact insurers through mortgage loan exposure, and importantly, also through the banking sector. The risk score assigned in the EIOPA surveys to a property price correction is far lower than for equity because property only accounts for a very small share of insurers' and pension funds' investments. Some markets have already experienced dramatic falls in property prices. Moreover, in some countries, investment in property by pension funds is not allowed by local legislation. However, as the banking sector is generally highly sensitive to property price falls due to the large share of mortgages and loans on the asset side of their balance sheet, the indirect exposure to property is many times what the direct exposure may seem to be. Furthermore, some national authorities report that the interest from insurance companies in this investment category is growing.

5.2. Quantitative risk assessment²⁰

The quantitative financial stability framework for the insurance sector aims to identify and quantify the relevant transmission channels through which adverse macroeconomic scenarios are transferred to insurance companies' balance sheet and profit and loss accounts. Gross written premiums and lapse rates are among key insurance variables highly correlated with the macroeconomic environment.

Growth in gross written premiums is more sensitive to changes in economic activity in life than in non-life insurance. Measured by simple co-movements, the correlation between growth in gross written premiums and gross domestic product is 1 in the life sector, compared to 0.85 in nonlife. Based on the current literature, there is some empirical evidence of growth of the insurance market being strongly connected with economic growth.²¹ However, economic growth is not the only macroeconomic variable that explains changes in premium growth.

Based on aggregate European data on premiums growth, it is possible to estimate a simple regression which suggests that contemporaneous GDP growth, lagged change in unemployment rate as well as gross written premium growth in the previous periods could explain contemporaneous gross written premium growth. However, the intensity of those links differs for life and non-life insurance. Box 3 summarizes the results of the estimated model for life and non-life insurance.

Box 3: Macroeconomic modelling of growth in gross written premiums

Annual models for growth in gross written premiums (GWP) for life and non-life insurance were estimated using panel regression techniques on the sample of 23 countries. Interest rates, unemployment rates, GDP and stock market indexes were considered as potential explanatory variables. Our empirical analyses point out the high persistence of GWP growth for both life and non-life insurance. Hence, dynamic panel regression with fixed effects using the Generalized Method of Moments (GMM) was employed. This approach is able to deal with endogeneity problem and provide unbiased and consistent estimates even though the dataset

²⁰ The quantitative assessment is based on aggregate data from 23 European countries from 2005 to 2012. The insurance data is published on EIOPAs website.

²¹ See for example Bianchi, Teresa, Korherr, Raimund, Ebner, Gernot and Ubl, Eva, (2011): "The Austrian Insurance Industry in CESEE: Risks and Opportunities from a Financial Stability Point of View", Financial Stability Report, issue 22, p. 88-106. This study estimates gross written premium in Central, Eastern and Southeastern Europe as a function of GDP with the obtained coefficient 1.51.

only spans an 8-year period. Moreover, cross-section weights were employed to control for the presence of cross-section heteroskedasticity.

The empirical analyses reveal that GWP up to three lags, contemporaneous nominal GDP and two year lagged unemployment rate (UNEMPL) have potential to explain contemporaneous GWP growth. Other variables do not contribute to the overall performance of the models. However, the estimated coefficients differ for the life and nonlife insurance sector. While unemployment seems to be the key driver of insurance premium growth for life insurance, its importance in non-life insurance is significantly lower.

Table 4: Models for gross written premium growth for life and non-life insurance

	Dependent variable GWP_life	Dependent variable GWP_nonlife
C	0.018*** (0.007)	0.030*** (0.007)
GWP_life(-1)	-0.555*** (0.055)	---
GWP_life(-2)	-0.479*** (0.047)	---
GWP_life(-3)	-0.295*** (0.039)	---
GWP_nonlife(-1)	---	-0.198*** (0.065)
GWP_nonlife(-2)	---	-0.300*** (0.062)
GWP_nonlife(-3)	---	-0.178*** (0.057)
GDP(0)	0.543*** (0.140)	0.533*** (0.128)
UNEMPL(-2)	-2.443*** (0.461)	-1.778*** (0.461)
R-squared	0.767	0.719
Adj. R-squared	0.670	0.600

Source: EIOPA calculations.

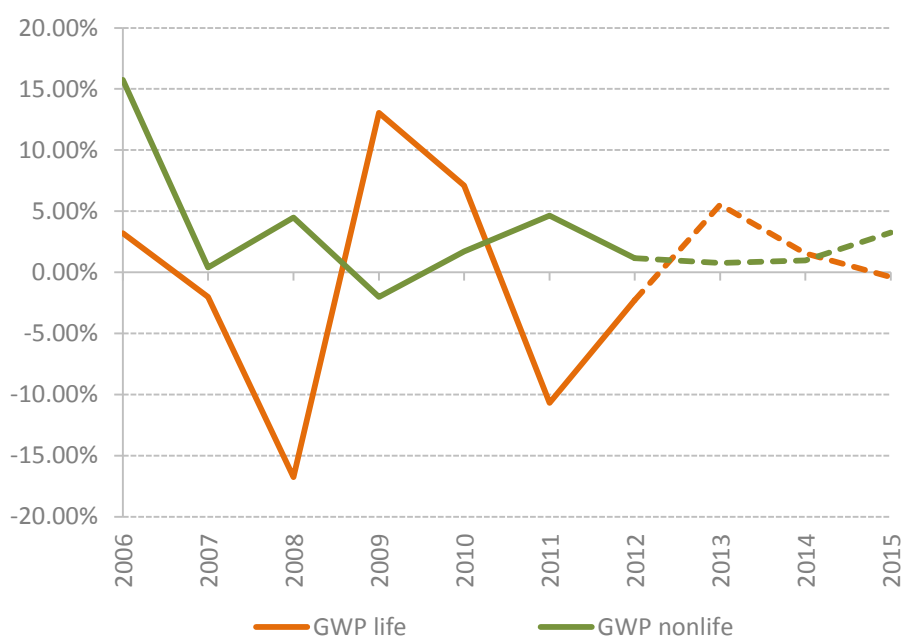
Note: Standards error of the respective coefficients are presented in parentheses, stars represent coefficients' significance (<1% ***, <5% **, <10%*), only the variables significant at least at 10% level were included into the final model.

Logarithmic transformation was applied to all variables employed in the two models except unemployment. Then, first differences were applied to all transformed variables to ensure their stationarity. GWP variables as well as nominal GDP represent growth rate, UNEMPL express change in unemployment rate in both models.

While market growth in life insurance will be negatively affected by current high unemployment in the next three years, non-life insurance might already benefit from gradual economic recovery. (see Figure 27)
This is due to e.g. compulsory insurance products for non-life business such as

car and accident insurance, whilst policyholders become more reluctant to enter long-term contracts in this weak economic environment on the life side. If interest rates rise again, the effect on life insurance companies could be even more harmful if life insurance products become unattractive in comparison to new available products combining life, pension or savings components. Life insurers could be exposed to a large number of policyholders exercising embedded surrender options, forcing insurer to liquidate their fixed income holdings. The rise in interest rates would then correlate to a sharp decline in the value of these assets which could hence force companies to realise large capital losses. Although the development in the economic environment is expected to be in line with the projections presented here, there is a risk of a much more pronounced decline in life insurance and weaker recovery in nonlife insurance if a double dip scenario materialises as described above. Changes in the tax regimes which have occurred in some European countries might have further significant effect on the future growth in premiums which is not captured by the projection.

Figure 27 GWP projection for Eurozone



Source: EIOPA and ECB survey of professional forecasters

Note: Dashed lines represent projection using macro scenario based on ECB SPF.

The macroeconomic environment determines lapse rates development.

EIOPA is currently working on quantifying the relationship between lapse rates and economic conditions. This work is at an early stage but preliminary findings indicate a positive link between lapse rates, the change in unemployment and

the level of interest rates.²² This suggests that the recent significant rise of unemployment would exert upward pressure on lapse rates, while the low yield environment would have an opposite, mitigating impact. Although GDP has been shown to be a key determinant in some studies focusing on particular countries and segments²³, the preliminary analysis conducted on the European level suggests tentatively that unemployment might better explain lapse rate development. However, the EIOPA empirical findings also show that there are important country differences and GDP growth rate can still contribute to explain average lapse rates in the insurance sector in some countries.²⁴ It further reveals seasonality with the strongest positive impact on lapse rates in the beginning of a year and lowest in the end. This work will be presented in more detail when it is further developed.

5.3. Conclusion

Although the situation varies between countries, the quantitative and qualitative risk assessments have confirmed the challenging environment in which insurers throughout Europe operate.

The low yields and the weak macroeconomic environment continue to weigh negatively on the results of insurance companies as well as pension funds. This has been clearly confirmed by the regularly conducted EIOPA bottom-up surveys among national supervisors as well as by the quantitative analyses which has shown the high sensitivity of gross written premiums and lapse rates to macroeconomic indicators as GDP, unemployment and interest rates. The EIOPA quantitative analysis further reveals that while non-life insurance growth is more robust benefiting from more stable demand, in part due to compulsory business lines, life insurance growth is more sensitive to change in the macroeconomic environment.

At the same time, overall risks have come down somewhat since the previous Financial Stability Report, and further improvement may occur in the coming six months. This assessment is based mainly on the emerging indications that growth will return to the eurozone in the coming months and that the deep recession following the financial crisis in 2007 and 2008 might be losing its grip. A slight upward movement of swap rates has been observed and predictions for growth are positive, although only marginally. Moreover, the EIOPA bottom-up survey reveals that credit risks have fallen somewhat, in line with reduced credit spreads on large parts of insurers portfolios. Finally, EIOPAs

²² The analysis was conducted using a pool logistic regression with country dummies to account for cross section heterogeneity.

²³ See e.g. Kiesenbauer D.(2011): "Main determinants of lapse in the German life insurance industry", the University of Ulm, Preprint Series: 2011-03.

²⁴ GDP growth rate was significant only when interacted with country dummy for Germany.

quantitative financial stability framework predicts positive growth both in life and non-life gross written premiums in 2013 and 2014, in line with generally improved market conditions.

However, any observed improvements are very slight and the potential recovery is extremely vulnerable. Loss of confidence in the financial sector due to the lack of the reform progress or political uncertainty can easily lead to a spread-reversal. Moreover, the persistent low inflation is likely to keep short-term interest rates only marginally positive in the coming months. Finally, EIOPA's quantitative framework clearly shows that premium growth in life insurance would be hit strongly under any adverse macroeconomic scenario (see coefficients for GDP and unemployment in Box 3).

At the end of 2013, therefore, low interest rates continue to threaten the profitability and sometimes the business model of many insurers, but also affect the economic growth which seems to be still fragile. If growth becomes more firmly anchored in the next six months, the insurance sector will benefit and risks to financial stability will decline.

Appendix

Data coverage and disclaimer - The insurance sector

EIOPA collects consolidated figures from 30 large insurance groups.²⁵ The data is provided by undertakings through the national supervisory authorities on a best effort basis. This means that the data is not subject to internal or external audit. Although effort is made to keep the sample for each indicator as representative as possible, the sample may vary slightly over time. As data is provided on an anonymous basis, it is not possible to track the developments on a consistent sample. EIOPA also collects EU/EEA-wide statistics on country level. This data is collected annually and published as statistical annexes together with the Financial Stability Report. The data is used in figures which present developments in individual countries.

Data coverage and disclaimer - The reinsurance sector

The section is based on information released in the annual and quarterly reports of the largest European reinsurance groups. The global and European market overview is based on publicly available reports, forecasts and quarterly updates of rating agencies and other research and consulting studies.

Data coverage and disclaimer – The pension fund sector

The section on pension funds 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 IORPs Directive) are still non-existent or are just starting to be established. Furthermore, in other countries the main part of occupational retirement provisions is treated as a line of insurance business respectively held by life insurers, and is therefore also not covered. The country coverage is 77% (24 out of 31 countries).²⁶

Data collected for 2011-2012 was provided to EIOPA with an approximate view of the financial position of IORPs during the covered period. Several countries are in the process of collecting data and in some cases 2012 figures are incomplete or based on estimates which may be subject to major revisions in the coming months. In addition, the main valuation method applied by each country varies due to different accounting principles applied across the EU²⁷. Moreover, data availability varies substantially among the various Member States, which

²⁵ The list of insurance groups is available in the background notes for the risk dashboard published on <https://eiopa.europa.eu/publications/financial-stability/index.html>.

²⁶ Countries that participated in the survey: AT, BE, BG, HR, DE, DK, EE (only qualitative), ES, FI, GR, HU, IT, LI, LU, LV, NL, NO, PL, PT, RO, SE, SI, SK and the UK.

²⁷ Main valuation method is based on market value (20 countries), but other valuation methods are also used (3 countries).

hampers a thorough analysis and comparison of the pension market developments between Member States.

Country abbreviations

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