



Solvabilität
Solvabilité
Οικονομική φερεγγυότητα
Solvibilità
Vakavaraisuus
Solvencia
Fizetőképesség
Solvabiliteit
Zdolność płatnicza
Solvabilidade
Lahustamisvõime
Solvens
Maksätspēja
Solventnost
Mokumas

Solvency II – Newsletter

No. 5/en-a. December 2005

The fifth issue of the Newsletter focuses on continuing progress towards new solvency regulations. Since the last issue, there have been numerous discussions between supervisory authorities and the various interest groups, CEIOPS¹ has responded to the second wave of Calls for Advice initiated by the European Commission, and associations and interest groups have published their appraisals. In addition, GDV² has submitted a **proposal for a European standard formula**.

Current developments

European Commission/CEIOPS

2nd wave of Calls for Advice

In the second consultation phase, CEIOPS responded to the European Commission's main questions relating to the quantitative aspects of Solvency II. CEIOPS' response running to almost 280 pages (CEIOPS-DOC-07/05³) was published in October 2005 and covered the following issues:

- Technical provisions in life and non-life insurance companies
- Minimum capital
- Solvency capital requirements: standard formula (life and non-life)
- Solvency capital requirements: internal models (life and non-life) and their validation
- Reinsurance (and other risk mitigation techniques)
- Field tests (quantitative impact studies) and data-related issues
- Powers of supervisory authorities
- Solvency control levels
- "Fit and proper" criteria
- Peer reviews
- Group and cross-sectoral issues



¹ CEIOPS – Committee of European Insurance and Occupational Pensions Supervisors

² GDV – German Insurance Association.

³ *Answers to the European Commission on the second wave of Calls for Advice in the framework of the Solvency II project, see www.ceiops.org.*

In addition to initial indications of future solvency requirements, regulators have been presenting their ideas on a future standard approach and internal models to be used for calculating required solvency capital. CEIOPS is also looking at ways of taking account of risk mitigation measures such as reinsurance.

Role of actuaries

CEIOPS also draws attention to the rising level of technical risk management knowledge which will be required of internal and external staff. This will principally involve increased use of actuaries who have both appropriate theoretical training in this area and the necessary practical experience. The Groupe Consultatif (Actuariel Européen) is currently producing a document describing the role of actuaries, which is intended to serve as a basis for further work at both the European Commission and CEIOPS.

Standard approach v. internal model

Comprehensive solvency margin requirements are needed for the protection of policyholders. The IAIS⁴ requires appropriate methods for calculating solvency capital requirement (SCR). A European standard approach should be available for use by small and medium-sized insurance companies to calculate their capital requirements. Such an approach will offer only limited possibilities for adequately depicting an insurance company's risks. Therefore, subject to certain additional conditions, companies will be able to develop internal models to better portray the actual risk situation. This will involve development costs. Not only will all relevant parts of the organisation have to be covered, but also there will have to be sufficient capacity available for implementation. CEIOPS thus recommends that a thorough cost-benefit analysis be performed before any decision on internal models is taken. Models will have to be certified by supervisory authorities before being authorised for use. It is also important to note that the supervisory authorities are considering whether they should withdraw authorisations for internal models where they are justified in so doing.

So that supervisory practice remains uniform in EU member states, "peer reviews" are to be performed by supervisory authorities in cooperation with each other. CEIOPS supports this approach and is to draft guiding principles for the work.

Reinsurance as a means of risk mitigation

CEIOPS recognises that reinsurance is the key risk management tool in insurance companies. Other important instruments are alternative risk transfer and hedging of investments. As a rule, the impact of reinsurance should be taken into account in determining both minimum capital and solvency capital. Internal models will enable the most precise calculations to be made. CEIOPS advocates that there should be no restriction on allowing for reinsurance in internal models, provided they satisfy the general requirements laid down⁵.

Reinsurance management strategy

In addition to the measurement of the reduction in solvency capital requirement resulting from reinsurance, qualitative reinsurance management standards are also under discussion. CEIOPS intends to require that companies prepare a "reinsurance management strategy" which would be subject to an annual audit, along the lines of the "investment strategy" proposed in the answers to the first wave of Calls for Advice. The strategy document should specify the amounts to be retained by the insurance company and the risks to be covered by way of reinsurance, define an appropriate reinsurance programme and identify suitable reinsurers.

Diversification

Allowing for diversification effects is an essential feature of Solvency II. CEIOPS consequently concludes that the simple addition of risk capital components to calculate SCR would be inappropriate⁶. However, diversification effects impact not only the determination of SCR, but also the calculation of MCR and reserves.

⁴ IAIS – International Association of Insurance Supervisors

⁵ "Provided the general requirements for internal models are satisfied, there should be no further restriction on allowing for the impact of reinsurance on capital requirements when the SCR is calculated under this approach", CEIOPS-DOC-07/05, p.143.

⁶ "Simple addition of the components could therefore overstate the appropriate amount of capital", cf. CEIOPS-DOC-07/05, p.90.

The Chief Risk Officer (CRO) Forum, the Groupe Consultatif, and the European Federation of National Insurance Associations (CEA⁷) have all pointed out that diversification effects should be taken into account both for individual companies and for insurance groups.

This principle applies whether a standard formula or an internal model is used to determine solvency capital. The Groupe Consultatif has submitted a working paper on diversification⁸. The CRO Forum had already outlined the framework for allowing for diversification effects under Solvency II in June 2005⁹.

Field test – QIS1

In order to investigate the impact of the new solvency regulations on the solvency capital of insurance companies, CEIOPS launched quantitative impact studies (QIS) whilst at the same time preparing a framework directive. The objective of the first study (QIS1) is to compare the level of underwriting reserves according to national valuation regulations with that which would be required under the provisional Solvency II valuation regulations, using discounted future cash flows and allowing for a risk margin. Supervisory authorities anticipate that such tests will provide them with an early assessment of the relevance of the proposed concepts and methods. Furthermore, they will enable the feasibility of the new valuation guidelines to be tested. The results of QIS1 will flow into the Impact Assessment which is expected to be published in 2006. A second investigation into solvency and minimum capital requirements is to be launched in early 2006. More tests are likely to follow.

CEIOPS conference

On 16 November 2005, a conference was held under the leadership of CEIOPS with the motto "Developing a new EU regulatory and supervisory framework for insurance and pension funds: the role of CEIOPS". Top representatives of the European insurance industry, EU representatives and other groups affected by Solvency II met for discussions.

Supervisory authorities

IAIS approved the content and structure of the basic parameters for future supervisory systems in October 2005¹⁰. The summary paper describes the basic principles and components of insurance supervision. The "cornerstones" paper lays the foundations for a common structure and contains numerous concepts which are being developed to form supervisory structures covering the markets and countries involved. IAIS will base a structure paper on it, to be published in 2006. The project comprises the following two phases:

- Identification of interdependencies within the system
- Development of detailed individual standards

The aim is to present the measurement of insurance companies' solvency in a more comprehensive way. It is the intention of IAIS both to create a basis for standards and directives and to support the worldwide enhancement of supervisory systems in the long term.

In addition to these publications, there will be other developments, in particular in standards relating to the solvency requirements, with increased focus on technical aspects:

- Determination of liabilities and reserves
- Valuation and suitability of insurers' investments

⁷ CEA – Comité Européen des Assurances

⁸ *Diversification – Technical Paper*, Groupe Consultatif, Oct. 2005, available under www.gcactuaries.org/publications.html.

⁹ *A framework for incorporating diversification in the solvency assessment of insurers*, The Chief Risk Officer Forum, June 2005.

¹⁰ *A new framework for insurance supervision: towards a common structure and common standards for the assessment of insurer solvency and Towards a common structure and common standards for the assessment of insurer solvency: cornerstones for the formulation of regulatory financial requirements*, IAIS, Oct. 2005 – see www.iaisweb.org.

Assistance of IAA

- Assessment and identification of forms of capital used

IAIS's aim in publishing these drafts is the rapid, consistent and transparent development of solvency guidelines. At the same time, the foundations should be laid for international best practice in solvency measurement. The IAA¹¹ has been asked to assist the IAIS in particular in defining the following:

- Role and purpose of "best estimates" of liabilities, solvency margin and reserves in solvency measurement and financial reporting
- Principles and approaches for determining best estimates of liabilities, solvency margin and reserves
- Measurable standards for assessing best estimates of liabilities, solvency margin and reserves

Adoption of reinsurance directive

Reinsurance supervision

As reported in the fourth Newsletter, the European Parliament approved the proposed EU directive on reinsurance supervision in June 2005. The European Council adopted it in October 2005. It will probably enter into force at the beginning of December on publication in the Official Journal of the European Communities. The directive has two particular advantages for affected companies: increased efficiency and simplified administration of supervision. At the core of the EU reinsurance directive are the rules on the direct supervision of reinsurance companies. They stipulate that in future a specified minimum capitalisation will be obligatory for reinsurance companies as well and are based essentially on the solvency provisions for primary insurers.

Risk margin v. own funds

In CEIOPS-DOC-07/05, CEIOPS discusses the question of determination of supplements to technical provisions. The supervisory authorities adopted the quantile approach put forward by the European Commission. However, other approaches to the definition and calculation of supplements to technical provisions are currently under discussion.

There is at present intense discussion on the question of what portion of available own funds should be allocated to cover future liabilities (reserves) and thus would not be available to cover SCR or MCR. "Future liabilities" is defined as the sum of the "best estimate" and a risk margin; the best estimate represents the net present value of future liabilities¹². Therefore, a distinction must be made between future liabilities and reserves in the balance sheet.

Within CEIOPS, the EU and the various groups working on the development of Solvency II, the basic issue is the actual aim of a risk margin for future liabilities covering a period of several years.

- a) Should it be considered primarily as security providing policyholders with a certain probability that they will receive payment pending final settlement? This is the view favoured by the European Commission and officially adopted, for example, in Australia and Singapore.
- b) Alternatively, is the objective of the risk margin to enable insurance companies to sell long-term liabilities to another company? As regards the latter objective, a market value approach is under discussion. A market for liabilities would provide protection for policyholders in the event of

¹¹ International Actuarial Association

¹² In the property-casualty area, the best estimate is regarded as the expected value of the probability distribution, which reflects the uncertainty pertaining until full settlement of claims payments relating to existing claims (view over several years).

insolvency. This strictly financial approach is used in the Swiss solvency test.

There are various methods which could be used to implement the approach:

Risk margin

- On the basis of the probability distribution of future liabilities until they are settled: in this case, the risk margin would be the difference between the best estimate and a selected quantile of the probability distribution. The European Commission has for the time being selected this approach as a working assumption and has set the quantile provisionally at 75%.
- Using the market value of future liabilities (market value approach): A distinction must be made between risks tradable in the financial markets and those for which there is no market. The latter include, for example, the mortality risk in life insurance business and underwriting risks in the property-casualty fields of business. For these risks, it is necessary to use an approximation as a substitute for market value. There are currently two techniques for achieving this: either the quantile approach mentioned above can be adopted or the future capital costs of (future) liabilities can be calculated. The latter method (estimating future capital costs), used in Switzerland, evidently comes much closer to the market value approach.

The advantages and disadvantages of the various techniques cannot be seen at a glance and the subject requires further, more thorough investigation, with account being taken of practicability and the regulators' point of view.

National supervisory models

European standard formula proposed for discussion

Supervisory authorities are currently discussing the details of a European standard approach. The German Insurance Association (GDV) has together with the German Association of Actuaries developed a model for a European standard approach. At the end of 2005, a standard formula compatible with Solvency II is to be presented and brought into the discussions at European level. It is contained in an Excel file with separate specific treatment of property/casualty and life insurers. The basic assumptions, the functioning of the Excel sheet and the input necessary for the performance of the calculations are explained in detailed documentation.

The last issue of the Solvency II Newsletter contained a report on the formula for property-casualty insurers.

New draft of GDV standard approach – Details for life insurers¹³

Diversification between risk classes

The special formula for life insurers is a modular factor approach which takes into account specific information on the company. The approach uses market values and is based on a twelve-month time horizon. The requirements of the European Commission are taken into account. All quantifiable risks incurred by the insurance company are covered. Company-specific data are incorporated where it appears appropriate from a risk point of view. Investment risks, calculation risks and operational risks are included as risk classes. These three classes are aggregated using a radical formula to arrive at the overall risk, thus allowing for diversification effects between risk classes.

Investment risk

In order to determine the investment risk, not only risks on the assets side are included. Risks affecting both sides of a life assurance company's balance sheet are taken into consideration. Credit risks arising from bonds and mortgage loans and market risks in shares and property concern only the assets side. Interest rate risk affects both assets and liabilities. Concentration risks are also taken into account.

¹³ Ralf Kürzdörfer, Munich Re

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| Calculation risk | <p>The calculation risk incorporates cost and debtor risks and biometric risks.</p> <p>Quantification of the cost risk is to be based on an assumed fall in new business volumes. Fixed acquisition and administration costs continue to be incurred. The required risk capital is derived from these costs net of contributions to coverage of administration costs from existing business, amortisation surcharges and the balance of sundry income and expenses. The impact of increasing policy lapses is reflected in a doubling of the debtor risk default rate.</p> |
| Biometric risk | <p>Biometric risk is divided into random fluctuation, accumulation and trend risks. Standard deviations of loss distribution are calculated for the risk of random fluctuations in respect of whole life, endowment, BI and other insurances. The accumulation risk in whole life and BI insurances is derived from a doubling of the risk costs.</p> |
| Operational risk | <p>Operational risk is calculated as a percentage of either gross premiums or reserves (whichever is the higher figure produced by the formula).</p> |
| Risk mitigation tools | <p>Risk relief through reinsurance is considered to be a key management tool and can be depicted by the GDV model. Capital relief is given both for proportional and non-proportional (accumulation) reinsurance. The relief is reduced to reflect the probability of default of the reinsurer, i.e. counterparty risk is taken into account in the calculation.</p> |
| Available own funds | <p>The required solvency capital (SCR) calculated by the formula should be viewed alongside the ASM,¹⁴ which includes shareholders' funds, final bonus reserves, provisions for unallocated policyholders' dividends and certain hidden reserves.</p> |

If you would like more information on this subject, please contact

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¹⁴ Available Solvency Margin