Actuarieel Genootschap

Position Paper

"The Role of the Actuary in Solvency II: Managing Financial Risks"

Working Group on the Roadmap to Solvency II, Dutch Actuarial Association
Utrecht, June 8, 2011

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Note: This document is a translation of the original Dutch position paper. "De rol van de actuaries in Solvency II: managing financial risks" also dated June 8, 2011. In case of dispute of the content of this document we refer to the original Dutch text.

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1. Summary

1.1 The Solvency II legislation introduces a new assessment framework which will apply to (re)insurers as of 1 January 2013. The most important objective of Solvency II is to provide better protection for the position of policyholders, and to provide a stimulus and a reward for effective risk management in the insurance industry, linked to specific capital requirements.

1.2 Under Solvency II, the complexity of the quantitative analyses required to determine the technical insurance provisions and the required solvency will increase considerably. As a result, the actuary's role will become more important and broader. It is therefore also positive that the European Solvency II regulations include the requirement that an insurer has an actuarial function.

1.3 In addition, Solvency II introduces two important functions, namely the actuarial function and the risk management function. In the description of the actuarial function, a direct link is made between the actuarial function and its contribution to the modelling of risks. The actuarial profession and the education of actuaries are undergoing rapid development in the direction of the actuary as an expert in the area of financial risk management for insurers (and pension funds). Due to their experience, education and codes of professional conduct, actuaries are very well suited to take responsibility for carrying out the actuarial and risk management functions.

1.4 Through the introduction of Solvency II, much will change with regard to the way in which insurers are required to value their insurance liabilities, the way in which they have to determine the legally required solvency and the capital available to cover the required solvency, the way in which they are required to implement risk management within the structure of the organisation and the way in which they are required to report on all of these aspects.

1.5 The above-mentioned changes have consequences for actuaries employed in the insurance industry. This applies to actuaries employed by insurers, actuaries who work as external advisers (or reviewers) and actuaries employed by supervisors. The following are examples of aspects relevant to actuaries in this regard:

- due to the valuation of insurance liabilities and other balance-sheet items at a market consistent value, the calculation complexity increases;
- in determining the legally required capital, numerous risks are taken into account, including risks which previously did not fall traditionally within the 'scope' of the actuary's work;
- the translation of the outcomes of solvency analyses market consistent valuations into financial policy decisions, and the implementation and monitoring of these will increase in importance;
- the necessary explicit approval in advance by the supervisor of internal models (and changes to models) used to determine the required solvency;
- external reporting on these aspects will have to be clear and comprehensible;
- the certifying role of actuaries in relation to the reporting schedules required in accordance with the Financial Supervision Act will have to be revised. Alternatives in the form of an (external) review will have to emerge to take account of this under Solvency II.

1.6 Present practice shows that actuaries play an important and leading role within the present actuarial and risk management functions of insurance companies.

1.7 The education of actuaries is consistent with the expertise required for an adequate performance of the actuarial and risk management function. The link between the expertise required and the educational programme is explicitly made within the framework of Solvency II.

1.8 The legally prescribed external certifying role of the Actuary registered with the Dutch Actuarial Association ('Actuary AG'), as this applies at present in the Netherlands, does not apply in all cases in other European countries. This has resulted in a situation where Solvency II legislation at the European level does not prescribe the certifying role as a legal obligation. Of course, this does not detract from the fact that there still is a need for external reviews of the technical insurance liabilities and other mandatory public and non-public reporting under Solvency II. Implementation along these lines is extremely important from the perspective of supervision because this provides more certainty with regard to the reliability and accuracy of the reports.

1.9 To provide support for the changing role of the actuary under Solvency II, the Dutch Actuarial Association is developing activities to introduce a new (actuarial) framework of standards which will enable actuaries registered with the Dutch Actuarial Association to implement the requirements of Solvency II adequately. The topics which are discussed in this regard also underline, in particular, the broad palette of expertise that actuaries have.

1.10 Where possible, cooperation with the International Actuarial Association (IAA) and Groupe Consultatif Actuariel Europeen (GC) will be sought or use will be made of standards and/or guidance which have been developed internationally.

1.11 Solvency II will introduce a new legal assessment framework. Under this new legal framework, the complexity of the quantitative analyses required to determine the technical insurance provisions and the required solvency will increase considerably. The actuary's professional area of work, as an expert in the area of financial risk management by insurance companies, will consequently become more important and broader. On the basis of their expertise, actuaries will contribute to achieving the objectives of Solvency II, including protection of the interests of policyholders. Good risk management by an insurance company is not possible without an actuary.

2. Introduction and justification

Introduction

2.1 The Solvency II legislation introduces a new assessment framework which will apply to (re)insurers as of 1 January 2013. The most important objective of Solvency II is to provide better protection for the position of policyholders and to provide a stimulus and a reward for effective risk management in the insurance industry, linked to specific capital requirements.[1]

2.2 With the arrival of Solvency II, the regulations, for instance in relation to technical insurance provisions and solvency, will change with regard to insurers. The calculation of solvency will be based on the actual risks to which the insurer is exposed. In this regard, market-consistent valuation of the investments and liabilities will be assumed. The credit crisis underlines the importance of Solvency II, within which risks are actively analysed, managed and, if necessary, mitigated.

2.3 Under Solvency II, the complexity of the quantitative analyses required to determine the technical insurance provisions and the required solvency will increase considerably. As a result, the actuaries' role will become more important and broader. It is positive that the European Solvency II regulations include the requirement that insurers have an actuarial function.[2] The actuarial function focuses, in particular, on the technical insurance provisions. Within Solvency II legislation, in contrast to present legislation in the Netherlands, no reference is made to a certifying role for the actuary.

2.4 Solvency II introduces two important functions, namely the actuarial function and the risk management function.[3] In the description of the actuarial function, a direct link is made between the actuarial function and its contribution to the modelling of risks. The actuarial profession and the education of actuaries are undergoing rapid development in the direction of the actuary as an expert in the area of financial risk management for insurers (and pension funds). Due to their experience, education and codes of professional conduct, actuaries are very well suited to take responsibility for carrying out the actuarial and risk management functions.

Justification

2.5 This position paper has been drawn up by the Working Group on the Roadmap to Solvency II on behalf of the Dutch Actuarial Association ('the Association') on the instructions of the Board. The Working Group on the Roadmap to Solvency II is a working group of the Solvency II Committee of the Dutch Actuarial Association.

2.6 By means of this position paper, an insight is provided into the consequences which the introduction of Solvency II will have for the role of the actuary. The position

[1] In this document, use has been made of existing publications, such as those published by CEIOPS, now known as EIOPA. These include, in particular, the Framework Directive(CEIOPS, November 2009), the issue paper "Own risk and Solvency Assessment" (CEIOPS, May 2008), the paper "CEIOPS' Advice for Level 2 Implementing Measures on Solvency II: System of Governance" (CEIOPS, October 2009, previously Consultation Paper No. 33) and the paper "CEIOPS' Advice for Level 2 Implementing Measures on Solvency II: Supervisory Reporting and Public Disclosure Requirements" (CEIOPS, October 2009, previously Consultation Paper 58).
[2] The actuarial function is described in the Framework Directive in Article 48.
[3] The risk management function is described in the Framework Directive in Article 44.

paper sets out the role which the actuary and consequently the actuarial profession is well positioned for to fulfil under Solvency II, in the opinion of the Dutch Actuarial Association. The ambition expressed in this position paper has consequences for the professionalism of actuaries and the position paper's aim is to initiate the formulation of internal policy. Of course, the Board realises that other specialists will also make a contribution to carrying out the risk management function under Solvency II.

2.7 The Board is aware of the stakeholders, such as the industry, accountants, supervisory authorities, the legislator and other experts in the area of risk management. Informal consultation with these stakeholders on the role of the actuary has taken place in groups of varying composition and by various bodies within the Dutch Actuarial Association. In the future, we will also actively seek contact with our stakeholders and, based on mutual trust, to further define the role of the fully qualified actuary.

2.8 Unless it is stated otherwise, the role of the actuary in this position paper will be considered within the framework of Solvency II (and therefore not IFRS) and the position of the actuary will be limited to that of the actuary registered with the Dutch Actuarial Association ('Actuary AG'). The situation in relation to pension funds lies outside the scope of Solvency II and also outside the scope of this position paper.

2.9 In addition to fully qualified actuaries, the Association also has members who are registered actuarial analysts ('Analyst AG'). This position paper explicitly describes the role of the Actuary AG under Solvency II. Obviously also registered actuarial analysts (Actuarial Analysts AG) are involved in activities related to the framework of Solvency II.

3. Actuarial activities under Solvency II

3.1 The activities arising from the requirements under Solvency II will make considerable demands on the boards and managements of (re)insurers. Solvency II is not only a new regime in the area of required solvency, but also involves an entire reappraisal of all the activities and operations of a (re)insurer. This includes, amongst others, all aspects of governance (in relation to risk management), reporting requirements and activities in relation to determining the technical provisions and the calculation of the solvency requirements, making use of (internal or standard) models.

3.2 The so-called Own Risk and Solvency Assessment (ORSA) occupies a prominent place in Solvency II legislation. This requires the management of a (re)insurer to demonstrate that it is 'in control' of all the insurance activities and the financial and solvency position of the company, both in the present and in the future.

3.3 In addition, detailed publication is required. The Solvency and Financial Condition Report (SFCR) will have to give policyholders and the market in general an insight into the financial and solvency position of the company. In addition to the SFCR, a number of other reports are also required.

3.4 The SFCR and the other reports under Solvency II require complex and often future-oriented quantitative analyses. These analyses fall entirely within the key tasks of the registered actuary (Actuary AG). The required specialist knowledge is part of the competences included in the educational programme of an Actuary AG. In the preparations for Solvency II there is already an increasing need for actuarial expertise. For instance, actuaries are frequently involved in:

- the various QISs[4] carried out to value the technical provisions, the drawing up of market consistent balance sheets, the quantification of risks and calculations of the required solvency;
- the development of internal capital models for the purpose of the ORSA and the pre-application process in relation to the application for an internal model under Solvency II;
- advice to the management on the impact of the models on the business and the translation of this into policy.

3.5 Under Solvency II, actuaries employed by an insurer will be involved in the structuring of internal actuarial and risk management functions. In this regard, a distinction may be made between actuaries in the operational, policy-making and auditing role. In addition, actuaries (both internal and external) will be required to provide objective assessments (or reviews) of models, the results of calculations and reports.

3.6 The Solvency II reports supplement existing mandatory financial reporting and supplement the embedded value (EEV or MCEV[5]) reports which are currently drawn up by insurers on a voluntary basis. The market will require certainty in some or other form in relation to these reports, certainly at the beginning, but also on a structural basis. We are convinced that this will result in insurers' commissioning experts to carry out objective reviews of the external reports.

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[4] Quantitative Impact Study, of which the most recent, QIS5, was carried out in the autumn of 2010;

[5] EEV (European Embedded Value) and MCEV (Market-Consistent Embedded Value) are valuation methods used to value insurance portfolios. MCEV refers to the Market Consistent Embedded Value Principles as developed by the European Insurance CFO forum (Copyright© Stichting CFO Forum Foundation 2008).

3.7 The importance of reviews such as this is acknowledged by the industry. For instance, the CFO Forum included an external review such as this in its principles in relation to the above-mentioned embedded value reports.[6]

3.8 The formal Solvency II reports do not form part of the financial annual reports and are therefore not subject automatically to auditing by an accountant. The desired certainty in relation to these reports can therefore not be derived necessarily from this assessment.

3.9 Partly due to the extensive actuarial and risk management expertise required, there is a need for specialists who are able to assess these reports.

3.10 These will be professionals who, in addition to a sound and relevant education, and partly on the basis of extensive experience, know what the business operations of (re)insurers entail and, more specifically, are able to assess the quantitative aspects of the new solvency regime. Needless to say, this role will have to be performed independently. This will also have to include the means to draw attention to issues and escalate matters, as guaranteed in the present certifying role of the registered actuary. The Actuary AG is very well suited to fulfil the role of an objective reviewer of Solvency II reports.

3.11 In Solvency II legislation at the European level, a certifying role which applies at present in the Netherlands is not prescribed as a legal obligation. This does not detract from the fact that it is very likely that there will be a continued need for an external review of the technical insurance provisions.

3.12 The direct involvement of the actuary in relation to the technical insurance provisions is present in Solvency II in the form of requirements in relation to the "actuarial function" and in the form of the (actuarial) expert[7] involved in the auditing of the annual accounts by the accountant.

3.13 In the Netherlands, registered actuaries have a good reputation and have established a firm position by providing added value in relation to actuarial and risk management activities within insurance companies, as well as through independent external reviews and certification. This position is due partly to a sound actuarial education, the professional approach taken by the Dutch Actuarial Association and the combination of extensive knowledge within the association.

[6] European Insurance CFO forum, *Market Consistent Embedded Value Principles*, October 2009.
[7] IAASB: ISA 620 "Using the Work of an Auditor's Expert ('2010 Handbook' and 'Basis for Conclusions', issued December 2008)

4. Solvency II will lead to a new approach to risk management

4.1 The most important objectives of Solvency II are better protection for the policyholder and providing a stimulus for good risk management by (re)insurers. The management of the insurance company must demonstrate that it is 'in control' in the broad sense of the term. This is part of Pillar II of Solvency II.

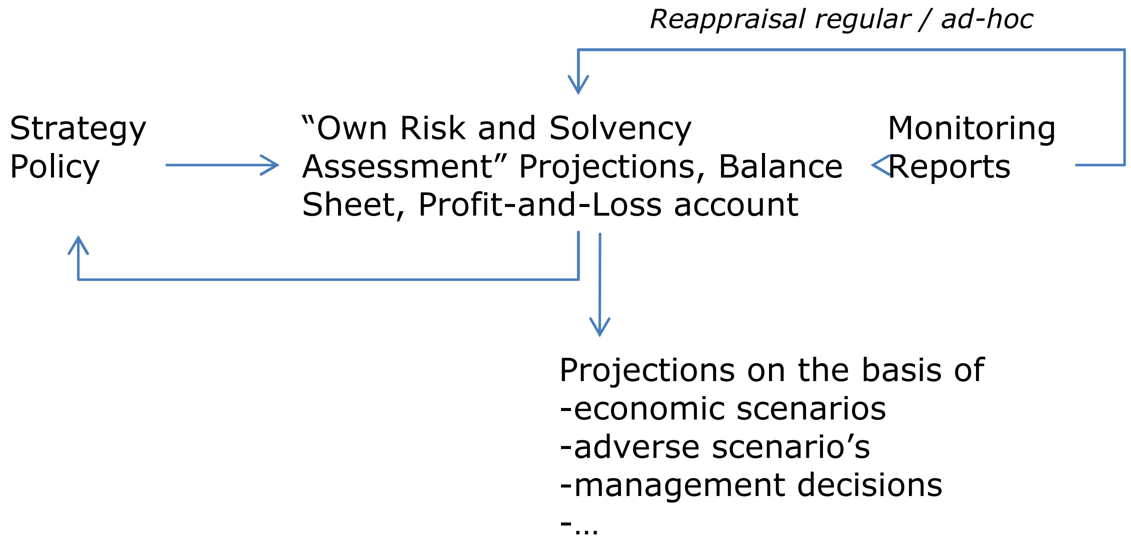
4.2 Far more than in the past, insurers will be compelled to measure, assess and manage the risks to which they are exposed in a structured manner and to report on these in a manner which is transparent and consistent.

4.3 Where insurers at present often implement risk management in their own way, under Solvency II they will be compelled to do so in accordance with consistent directives prescribed for the entire market.

4.4 Solvency II compels insurers to organise their processes in such a way that the management is in a position to identify and assess the risks appropriately. This involves all risks to which the company is or may be exposed, both in the short term and in the long-term, including the dynamic balance-sheet relationship between assets and liabilities. The process of product development is also explicitly included in this, with regard to both its substantive technical aspects and increasingly its societal role in relation to the duty of care.

4.5 Good risk management is rewarded under Solvency II. On the basis of demonstrably solid risk management and the use of a (partially) internal model to calculate the required solvency capital, insurers may obtain an advantage in the form of a lower capital requirement.

4.6 Insurance companies will have to demonstrate that they are 'in control' firstly to the supervisor and secondly to the market as a whole. This process of being 'in control' is set out schematically in the diagram below. The insurer is deemed to meet the capital requirements and the requirements with regard to the technical insurance provisions on a continuous basis.



Notes to the diagram: *The implementation of the ORSA process will be based on the present strategy and the agreed 'risk appetite' of the insurer. On the basis of a continuous and iterative process, a balance will be found between the strategy adopted and the 'risk appetite', and the expected development of this in terms of solvency and the financial strength of the insurer, both in the short term and the long term. This balance is the result of, for instance, projections of the balance sheet and profit-and-loss account on a quantitative basis. After the initial set up of the ORSA, this will develop into a process of continuous monitoring of current (and expected) risks. On the basis of the (natural) development of the insurance portfolio and the accompanying risks, a reappraisal of the adopted solvency policy will be required, both on a regular and on an ad hoc basis.*

4.7 In relation to the ORSA process, management wishes to obtain an increased level of certainty that the ORSA process, the necessary quantification of the impact of possible risks on the solvency position and the policy conclusions and strategy proposals derived from this are of sound quality and can meet the supervisor's requirements. Actuaries are excellently qualified to make a contribution increasing this certainty.

4.8 Under Solvency II, the insurer's balance sheet must be determined at its market value. The quantification of the integral market-value balance sheet will partly be based on complex cash-flow models, making use of a considerable degree of variety and detail in relation to external economic and internal company-specific variables. The mathematical complexity will therefore increase considerably. The role of the actuary is also evident in this regard.

4.9 In addition, the actuary can make an important contribution to the translation of the outcomes of Solvency II into proposals for the insurer's future policy.

5. Tasks of the actuary in relation to reports and the description of risk models under Solvency II

5.1 An important pillar (Pillar III) of the Solvency II process relates to reporting. The reports are not only a reflection of the most important processes within an insurance company, but also give form to the desired transparency, consistency and comparability. By doing so, the intention is to offer certainty to policyholders and other market parties involved.

5.2 The reports on solvency and the financial position are approved by the administrative, management or supervisory body within the insurance company and is only published after this approval has been given. An external review or audit of these reports is not prescribed.

5.3 In this chapter, the most important Solvency II reports in relation to the role of the actuary are explained and are categorised into public and non-public reports. The non-public reports also contain reports to be submitted to the supervisor. We describe the role of the actuary both in relation to the actuary's internal role within an insurance company and in relation to the actuary's independent role as a reviewer.

5.4 In this chapter, a description is also given of the activities which are expected to be assigned to the actuary in relation to risk models. Although a formal report on risk models is not prescribed by Solvency II, it is necessary that adequate documentation is drawn up on the risk models themselves, their use and the way they are embedded.

Public reports

Solvency & Financial Condition Report (SFCR)

5.5 The SFCR is regarded within Solvency II as the primary report which every insurer is obliged to publish. The report contains essential information on the solvency and the financial condition of the company and therefore provides market players with the necessary transparency. The most important components of Solvency II are stated in the report, such as the (operating) results, the governance structure and the organisation of risk management, including insurance risk, market risk, credit risk, liquidity risk and operational risk. In addition, reports are provided on balance-sheet management, including investments and technical insurance provisions, asset management and the use of (partially) internal models. The balance sheet and profit-and-loss account are determined at their market value.

Role of the actuary

5.6 The SFCR contains a large number of components which will be implemented by the actuary who carries out the insurer's actuarial or risk management function. This relates, for instance, to the valuation of the technical provisions, the calculations within the framework of the required solvency capital and the ORSA.

5.7 The market, but also the insurers themselves, will require an objective review of this report, which will provide more certainty about the reliability and comparability of these important reports. An actuary is in a position to take responsibility for providing an objective review of the SFCR.

Non-public reports

Report to Supervisor (RTS)

5.8 The objective of the RTS is to facilitate adequate supervision and it includes at least all the regular information reported, as set out in the SFCR. The RTS is a separate report and, in addition to the information contained in the SFCR, contains the insurer's strategy and any confidential data. In relation to the public SFCR, these are not only data which relate to the insurer's strategy or legal and legislative issues, but also projections of solvency requirements and expected risks. In this regard, the insurer must also offer insight into the (underlying) process of the calculations and must demonstrate on the basis of quantitative analyses that the outcomes of the projections used are in line with expectations. The RTS also contains information on the extent to which expectations have in fact been realised and are reflected in the outcomes.

Role of the actuary

5.9 In addition to the public SFCR, the RTS contains confidential information on, for instance, the insurer's strategy. An actuary can take responsibility for carrying out an objective review of the RTS for the management of the insurance company and, by doing so, can assess the consistency between the strategy and the expected development of the company's solvency.

5.10 The supervisor will benefit from an objective review of (parts of) the RTS, enabling greater certainty to be obtained with regard to the reliability of the report and the comparability of the reports of the various insurers. If this review is carried out under the responsibility of an Actuary AG, the supervisor may relay that the activities are carried out subject to the professional and quality standards of the Dutch Actuarial Association.

Own Risk and Solvency Assessment (ORSA)

5.11 The ORSA provides an insight into the future development of the company's solvency and financial condition within a broad framework. The ORSA encompasses the consistency between the desired risk profile and the actual risk profile, the strategy of the institution, compliance on a continuous basis, the consistency between the strategy and the underlying processes, and the adequacy of the way in which the company's policy is reflected in (internal/standard) models. The ORSA stimulates the insurer to determine future risk positions, to provide estimates of the changes in risk positions, to determine how these can be measured adequately and how these can be anticipated with regard to the desired capital positions. The ORSA must be carried out at least annually. In this regard, it is the insurer's responsibility to demonstrate that this is sufficiently frequent. The ORSA must in any event include:

- a description of the integration of the ORSA in the management process;
- a description of the frequency with which the ORSA is reviewed by the management of the insurance company;
- a description of the way in which the solvency requirement is determined in the light of the risk profile;
- a guarantee that the ORSA process is well anchored in decision-making and is adequately documented.

Role of the actuary

5.12 The management is directly responsible for the ORSA. The ORSA includes projections by the insurer of expected results for a period of 3 to 5 years. The actuary plays an important role in drawing up and assessing projections of solvency requirements and expected risks, as well as in relation to the analysis of whether expectations have been realised and/or are reflected in the outcomes, including the (quantitative) impact of management decisions on these projections and outcomes.

5.13 The actuary also plays an important role in assessing the projections and in translating these into possible policy options.

Quantitative Reporting Templates (QRT)

5.14 In addition to the above-mentioned reports, the supervisor also requires insurers to submit QRT reports. QRT reports are drawn up in order to obtain timely signals of developments in the insurer's financial situation, solvency and results. The QRT reports are drawn up in a prescribed fixed format so that the quantitative data provided by the insurers can be compared easily. Under exceptional circumstances and if the (national) situation requires this, the supervisors are allowed to develop specific national templates. The QRT reports, as an extension of the RTS, must be submitted to the supervisor at least annually and, in addition to this, must also be submitted on a quarterly basis to ensure that the information is up-to-date.

Role of the actuary

5.15 Within the insurance company, the actuary is involved in drawing up various parts of the QRT reports. Often this information cannot be derived directly from the financial and/or accounting figures, as a result of which supplementary (quantitative) analyses will be required.

5.16 The actuary can assume responsibility for the objective review of the QRT on behalf of the management of the insurance company.

Risk models

Use of risk models (internal/partial/standard model)

5.17 Solvency II requires more attention to the creation of risk models. A risk model is specific to an insurer and therefore provides the respective insurer with a better insight into its risks. Solvency II promotes the development of risk models. An important aspect of the introduction of risk models is the requirement that they be embedded well in the organisation. In other words, it is explicitly assumed that the management and board of directors of the organisation are familiar with the (operation of) the risk models. The use of risk models must be integrated into the company's operations. Reports on the use of risk models must, in any event, contain the following information:

- the way in which and the level at which the management is aware of the operation of internal models, including their structure, logic, dynamics, limitations, diversification and scope;
- the way in which the risk model contributes to decision-making within the insurance company;
- an explanation of the use of techniques in calculating parameters and models;
- the way in which the risk models are validated;

- the way in which the theory, assumptions and substantiation of the model is documented;
- the way in which the model outcomes are consistent with the further requirements of Solvency II.

Role of the actuary

5.18 Actuarial expertise must be used for the entire spectrum of risks that is distinguished within a risk model. This applies both to insurance and non-insurance risks, including the market risk and counterparty credit risk. Of course, the Board realises that other specialists will also make a contribution to carrying out the risk management function under Solvency II. In their reviewing role, actuaries can assume responsibility for providing an objective assessment of the accuracy and applicability of (parts of) the model used, irrespective of whether this is a (partially) internal model or the standard model.

5.19 In the run-up to Solvency II and in relation to specific parts in the development, implementation and use of these models, actuaries are already involved on a significant scale. Insurance companies also rely on actuaries in relation to the prior application of (partially) internal models. Furthermore, actuaries advise the management on the impact of such models on the company's operations.

5.20 In addition, external actuaries are asked to validate models in relation to the pre-application of internal models. Validation is a recurring activity which occurs when changes are made to the (partially) internal model or when an assessment is made to ascertain whether the model still matches the risk profile of the insurer. The expertise of actuaries is frequently used to validate models. The Actuary AG has the professional expertise which is required to take responsibility for the validation of an internal capital model.

6. Conclusion: the added value of the registered actuary (Actuary AG) under Solvency II

6.1 In the previous chapter, we discussed the reports and risk models under Solvency II. Adequate delivery of the required reports will become increasingly important.

6.2 Insurers will not only have to comply with the Solvency II directives at the moment of reporting, but on a continuous basis. The insurer will have to deliver reports that provide evidence of this. It is the explicit intention of the European Commission that the formal Solvency II reports are independent of the annual accounts.

6.3 Due to the specific, prospective nature of Solvency II reports, these reports can be expected to have greater added value for stakeholders than the present financial reports in relation to the annual accounts. After all, the latter 'only' answers the question as to whether the company has complied with the applicable reporting rules and directives in relation to a specific reporting period (financial year). Consequently the present financial reports are, in fact, reduced to snapshots of a continuous and far more important permanent process of providing assurance that there is sufficient solvency.

6.4 These 'snapshots', of course, retain their value. The same applies to the role of the auditor in relation to the annual accounts. Related to this also the expert role of the actuary will become more important and will increase partly in the light of the development towards market valuation (IFRS 4, Phase 2).

6.5 Due to their broad substantive knowledge and education, actuaries are able to take professional responsibility for both the actuarial and the risk management functions under Solvency II. In addition, actuaries can play a leading role in carrying out all analyses, but in particular quantitative analyses, and the corresponding reporting which has to take place within the framework of Solvency II. The actuary therefore contributes to the implementation and quality of the reports referred to in the previous chapter and, in doing so, to the transparency, consistency and comparability of insurers in relation to the market as a whole, to policyholders in particular, and last but not least to the management of the insurance company.

6.6 In addition, in their role as reviewers, actuaries add value to stakeholders (policyholders, shareholders, rating agencies) by providing an objective opinion based on their expertise. In this way, a statement that the management is 'in control' can be strengthened in an objective manner. Indirectly this also provides the supervisor significant added value as it further secures the information submitted by the management in accordance with Solvency II.

6.7 On the basis of a tradition extending over many years, actuaries have acquired a strong position due to their certification of actuarial reporting schedules, by interpreting liability adequacy tests and, independently of the annual accounts, by carrying out independent reviews of EEVs and MCEVs. In this sense, actuaries are acknowledged to be experts in the area of quantifying and assessing the financial position of insurers. Needless to say, this position will gain in importance under Solvency II.

6.8 The quality of the registered actuary (Actuary AG) is supported and strengthened by a combination/system of (actuarial) standards and guidance issued by IAA, Groupe Consultatif and the Dutch Actuarial Association itself. These standards provide norms for the way in which actuarial activities are carried out. These norms apply to the actuary's role in carrying out actuarial activities, but also in relation to carrying out objective reviews.

6.9 The combination of substantive actuarial knowledge and knowledge in relation to risk management, the involvement of actuaries with insurers over many years and a set of professional codes of conduct — in relation to actuarial activities and risk management — makes the Actuary AG an important advisor to the management. Actuaries are able to translate the insurers' quantitative information into policy. Good and effective communication is essential to this.

6.10 Good risk management by an insurer is not possible without an actuary. Solvency II introduces a new supervisory framework. This is a new legal framework in which the complexity of the quantitative analyses required for the determination of the technical insurance provisions and the required solvency capital will increase significantly. The actuary's area of work as an expert in the area of financial risk management of insurers will become more important and more extensive with the introduction of Solvency II.

7. Roadmap

7.1 To provide support for the changing role of the actuary under Solvency II, the Dutch Actuarial Association will develop a new (actuarial) framework of standards, or amendments will be made to existing standards, which will enable actuaries to carry out their activities in relation to the actuarial and risk management function as well as the reporting requirements under Solvency II adequately. A new actuarial framework of standards must include at least:

- the *modus operandi* of reviews;
- the requirements with regard to independence;
- the content of the review reports and declarations;
- the requirements with regard to keeping records;
- the standards or guidance to be applied;
- the applicable code of conduct;
- the system of disciplinary procedures.

Where the last four components of the framework of standards are relevant to actuaries both in carrying out their actuarial activities and in the role of reviewers, the first three components, in particular, are intended for actuaries in their role as independent (internal or external) reviewers of reports under Solvency II.

7.2 The education of actuaries is consistent with the expertise which is required for the adequate performance of the actuarial and risk management function. Related to the framework of Solvency II the link between the expertise required and the educational programme will be made more explicit. The breadth of actuarial education will be expressed, for instance, in the launching of the CERA programme offered by the Dutch Actuarial Institute. This internationally accredited programme will allow experienced registered actuaries to acquire further competences in Enterprise Risk Management.

7.3 Linked to this, *en route* to the introduction of Solvency II, topics will be selected on which the Dutch Actuarial Association wishes to provide its members with further information and education in the coming years, for instance by publishing 'papers' and organising seminars and continuous education meetings and seminars.

7.4 It is clear that in relation to the Dutch Actuarial Association's task of providing support for the changing role of the actuary under Solvency II, it will have to develop many activities to give form to a new (actuarial) framework of standards which will enable the actuary to meet the requirements adequately in relation to the actuarial and risk management function and external reports. The topics which are discussed in this regard will also underline, in particular, the broad palette of expertise which actuaries possess.

7.5 Where possible, co-operation with IAA and Groupe Consultatif will be sought or, alternatively, use will be made of standards and/or guidance which has already been developed internationally by the profession.