Position paper on the role of the actuary under Solvency II

Danish Society of Actuaries

The Board[1]

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Executive summary

New legislation regarding risk-based assessment of the capital requirement of insurance companies is being introduced throughout Europe – the Solvency II-framework. The aim of Solvency II is to protect the policyholders. This poses among other things increased focus on the role of the actuary, which is explicitly being addressed in the framework.

Being a framework though, the implementation of Solvency II needs to be adapted to each member state. Therefore, we, Danish Society of Actuaries, have produced a position paper on how we see the current role of the actuary in the life and non-life insurance industry respectively. This is followed by a comparison with the framework surrounding the actuarial function and the risk management function under Solvency II regarding both life and non-Life.

The comparison shows that the Solvency II-framework poses a strengthening of the role of the non-Life actuary as well as the governance structure for non-Life insurers in relation to calculation of the technical provisions and the risk management. We welcome these changes.

It also shows that the current policyholder protection in life insurance through the role of the appointed actuary is not explicitly addressed in the Solvency II-framework. We therefore recommend that the implementation of the Solvency II-framework in Danish legislation maintains the regulation for policyholder protection through the independent role of the appointed actuary.

More generally, we recommend that persons granted an explicit responsibility to express an independent opinion are also protected by specific rights and protection measures to actually fulfill this responsibility.

This said, we welcome the implementation of the Solvency II-framework as a significant and important step towards better policyholder protection through effective risk management.

Introduction

The Solvency II legislation introduces a new European assessment framework for (re-)insurers which will apply as of 1st January 2014. The main objective of Solvency II is to provide better protection for the policyholders and to provide stimuli and rewards for effective risk management in the insurance industry.

The Solvency II regulation introduces risk based solvency capital requirements, and the calculation of solvency capital will be based on the actual risk exposure of the insurer based on a market-consistent valuation of the investments and liabilities of the insurer. The credit crisis followed by extreme interest rate levels across Europe underlines the importance of an improved risk framework where risk factors are actively monitored, managed and, if necessary, mitigated.

Under Solvency II, the complexity of the quantitative analyses required to determine the technical insurance provisions will increase considerably. As a result, the actuary’s role will become more important. It is positive that the European Solvency II regulation includes the requirement that insurers have an actuarial function as well as a risk management function.

In contrast to the existing Danish legislation, the Solvency II regulation introduces a common framework for life and non-life insurance business. This implies a considerable strengthening of the formal requirements regarding calculation of the technical provisions and the risk management set-up across the industry as well as the actuarial function in non-life insurance, whereas the Solvency II framework does not refer to the appointed actuary framework that exist within the current Danish legislation regarding life and pension insurance.

This position paper has been written on behalf of the Danish Society of Actuaries in order to provide insight into the consequences on the role of the actuary when the Solvency II regulation is implemented in Denmark.

The paper compares the existing Danish legislation regarding the role of the actuary within life insurance and non-life insurance with the new Solvency II regulation regarding the actuarial function and the risk management function in combination.

The paper addresses the actuarial as well as the risk management function – both because we want to consider the entire risk assessment setup and because we consider actuaries well qualified to take responsibility in both functions.

The paper also offers recommendations on how to maintain and improve the governance set-up in relation to the role of the actuary when the Solvency II regulation is implemented – not only in Denmark but throughout the EU.

The role of the actuary today in Denmark

The life actuary

Formal role of the appointed actuary

Denmark has more than 100 years of statutory history of an appointed actuary in life insurance. It is mandatory for all life and pension insurance companies to employ an appointed actuary and the legislation poses both responsibilities and rights towards the appointed actuary.

Governance

The current Danish Financial Business Act (FiL) §108 states that all insurers shall ensure sufficient technical expertise to calculate technical provisions. If the insurer is licensed to carry out life insurance activities, the Board of directors shall employ an appointed actuary to carry out necessary actuarial functions, including calculations and investigations.

A set of fit and proper rules exists for appointed actuaries today. The rules specify minimum requirements of experience and education of the appointed actuary. However, the requirements do not specify a certain level of competence, and moreover the requirements are independent of the type and complexity of the business and the responsibility.

Further, it is stated that the appointed actuary is employed and dismissed by the Board of directors, and in connection with dismissal of the appointed actuary, both the Board of directors and the appointed actuary is obliged to account for the reasons for the dismissal to the Financial Supervisory Authorities (FSA).

Responsibilities and rights

The appointed actuary's responsibilities are in short to

- ensure that the company complies with its technical basis and that the technical basis complies with current legislation
- review actuarial content of the company's activities and material
- immediately report breaches of the technical basis and issues regarding capital requirements to FSA
- produce an annual report describing the current state of the company as seen by the appointed actuary independently of the executive management
- hereunder commenting independently on the adequateness of the data quality
- Comment independently on the content of the annual book-closing report from an actuarial point of view
- participate in board meetings if required so by at least one member of the board of directors

These responsibilities are followed by the right to

- call in Board of directors to a board meeting
- participate at board meetings
- Get his/her opinion stated in the minutes for the meeting
- access all relevant material of the company

These rights and responsibilities are further described and regulated in FiL – especially FiL § 71 and FiL §108 regarding corporate management of the company together with the "Order of the Appointed Actuary". These paragraphs describe in detail how a company should be properly managed.

The latter right – the unlimited access to all relevant material – also implicitly introduces a responsibility to independently assess and comment on relevant areas of the business, hereunder the risk management of the company, if the areas can affect the responsibilities of the appointed actuary.

Another important obligation of the appointed actuary is to ensure that the life insurer complies with the principle of fairness and adequateness, and for with-profit types of business also the contribution principle, i.e. that surplus is distributed fairly between policyholders and shareholders, and that surplus allocated to the policyholders is distributed fairly between the policyholders in accordance with the policyholders' financial contributions to the surplus.

Reporting

As mentioned above the appointed actuary is obliged to produce an annual report describing the current state of the company. The content of the annual report is regulated by law and is to be sent both to the FSA and the Board of directors. The purpose of the report is to give an independent actuarial judgement of the state of the company including an independent assessment of the adequateness and fairness of the technical basis, how the principle of contribution is complied with, an assessment of the financial state of the company in 10 year's time, and various analyses of risk parameters. Also, the appointed actuary is obliged to comment independently on the annual report of the company and whether any of the reporting to the FSA regarding introduction of new products, changes of conditions in existing products etc. gives rise to actuarial concerns.

Informal role

The appointed actuary – or more generally the life actuary – typically also plays a role in other areas. The extent of the role depends of the size and complexity of the organisation

Often, the actuaries are involved in various technical disciplines ranging from Asset Liability Management, development and implementation of IT-systems, product development, support to operations in technical questions, to e.g. underwriting and sales profitability assessments, pricing, reinsurance programmes and various analyses to the senior management.

It should be noted here that the organisational setup regarding these areas varies considerably amongst Danish life insurance companies, but regardless of organisational setup the appointed actuary is still obliged to independently assess these areas to the extent that they potentially impose changes in the technical provisions, the technical basis, the risk factors in relation to the technical provisions, or they have an actuarial content due to the right and obligation to receive all relevant material.

The non-life actuary

Formal role of the non-life actuary

The existing legislation in Denmark does not explicitly mention neither an actuarial function, an appointed actuary for non-life insurers nor a risk management function. The current formal requirement addresses solely that the company shall ensure sufficient technical expertise to calculate technical provisions as mentioned above without specifying what it implies.

Governance

However, FiL §71 requires by any financial institution to execute effective management including (among other things) specific issues in the governance structure:

- Implement clear organisational structure and delegation of responsibility
- Implement effective procedures on order to identify, manage, monitor, and report relevant risk factors
- Ensure adequate resources available to execute the business
- Ensure procedures and discharge certain functions in order to handle potential conflicts of interest

Furthermore, FiL § 108 requires that all insurers have access to sufficient technical expertise and skills to be able to calculate the technical provisions.

Responsibilities and rights

The current legislation implies that – even though not explicitly stated – larger non-life insurers and with certainty non-life insurers with more complex lines of business must have a certain level of actuarial expertise and risk management expertise available for the organisation. However, there are no specific legal requirements to the structure and the organisational setup today. Also there are no responsibilities and rights stipulated by law regarding the non-life actuary.

In terms of governance structure, the actuarial department is most commonly part of the responsibility of the CFO, and the head of the actuarial department typically refers to the CFO. The head of the actuarial department is typically not part of executive management and has therefore little or no formal contact to the Board of directors.

Reporting

The current legislation regarding non-life insurers does not explicitly mention any actuarial body or risk management function or even requirements of actuarial skills. Consequently, the actuary has no specific statutory reporting responsibility.

Informal role

The non-life insurance industry in Denmark is dominated by a few larger insurance companies, but the industry also contains a wide variety of smaller and specialised companies, many of these have concentrated on less complex business lines.

Best practice in the non-life industry very much depends on scale and complexity of the individual business. Large companies have highly specialised in-house actuarial departments involved with pricing, reserving, re-insurance programmes, controlling etc., and they have extensive risk management functions either as part of the actuarial department or organised in a separate unit. Smaller companies use simpler methods, and many do not make use of actuaries at all.

The role of the actuary under Solvency II

The draft Proposal for Level 3 Guidelines on the System of Governance state in the introduction that.

"*The principle of proportionality allows undertakings to design their system of governance in a way that meets all regulatory requirements while appropriately reflecting their specific risk profile.*"

The requirements to the governance framework aims at providing a sound and prudent management of insurance companies without unduly restricting them in choosing how to organise themselves as long as they establish an appropriate segregation of duties that in particular ensures the necessary full independence of the internal audit function and the operational independence of the other key functions.

"At least the functions included in the system of governance, risk management, compliance, actuarial and internal audit, are considered to be key functions and consequently also important and critical functions."

Where Danish insurers at present often implement risk management motivated by self-interest, under Solvency II they will be compelled to do so in accordance with consistent directives prescribed for the entire market.

As a consequence the role of the actuarial function and the risk management function is described in more details in the Solvency II legislation than in the existing Danish legislation.

Calculating vs. being responsible for technical provisions.

The guidelines specify that both the person calculating the technical provisions and the person expressing an opinion on these calculations must possess knowledge of actuarial and financial mathematics.

In fact the draft of the level 3 guidelines from EIOPA 3.32 explicitly states that a full or partial integration of these functions (the risk management function and the actuarial function) is acceptable as long as conflicts of interest are dealt with appropriately. Thus the focus seems to be on ensuring right skills, independence, prudence and four eyes principle.

These requirements can be met in many ways. Today they are met with specific regulation regarding the appointed actuary. Thus the appointed actuary is personally responsible for the adequacy of the technical provisions and refers directly to the Board of directors and has direct access to the FSA. In non-life, however, there are no formal requirements today.

It is not clear whether Solvency II explicitly requires a second opinion revision of the technical provisions executed by someone outside and independent of the actuarial function, or whether the second opinion evaluation can be performed by someone inside the actuarial function.

Here, the policyholder protection objective of Solvency II is to ensure the highest possible quality of the technical provision. We see this objective being fulfilled by use of both the former and the latter interpretation. We generally recommend flexibility in the organisational setup as both organisational setups has advantages and disadvantages.

Regardless of the organisational setup we recommend that this flexibility is followed by requirements from the legislator that the companies document that their solution poses no conflicts of interest.

The Actuarial Function

The Actuarial Function and Governance

Furthermore, the proposal also states that

"With the actuarial function being a new function and a measure of quality assurance with a view to safeguarding that certain control tasks of an undertaking are based on expert technical actuarial advice it is especially important to establish guidelines on the tasks, responsibilities and other aspects of the actuarial function to ensure an appropriate level of convergence. "

The intentions in the draft proposal are that the insurance companies basically can design their system of governance as long as they respect the regulatory requirements:

- The staff of the actuarial function and the persons calculating technical provision must possess adequate skills. The same requirements are essential for persons giving and reporting an opinion.
- Persons giving and reporting an opinion must act independently and free from management interference and have to report their opinion to the administrative, management, Board of directors and FSA – four eyes principle (with review either from within the actuarial function or from an independent function).

- The insurance company needs to ensure that conflicts of interest are adequately managed between the persons performing the calculation of the technical provision and the person giving an opinion on these calculations, i.e. the Actuarial Function.
- The insurance company also needs to ensure that conflicts of interest are adequately managed between the person giving an opinion and the executive management

The actuarial function compared to the life-actuary today

General comments

In Denmark today, the appointed actuary is appointed by the Board of directors and has the right and responsibility to reports his/her opinion directly to the FSA. Thus the appointed actuary has formal access to both the Board of directors and the FSA, which ensures a strong platform for exercising a valuable independent assessment and reporting function. This governance structure ensures high policyholder protection when it comes to ensuring the adequacy of the technical provisions as well as protecting policyholder's rights in accordance with the principle of fairness and adequateness and for with-profit pension schemes also the contribution principle.

This governance set-up is originally designed to protect the appointed actuary. In practice, however , this governance set-up strongly supports the appointed actuary in protecting policyholders. This special position enables the appointed actuary to support management decisions regarding e.g. IT and resources long before it becomes an issue e.g. at a board meeting or towards the FSA. Thus, the governance structure has an important impact on management decisions and hence policyholder protection in real life.

The actuarial function vs. the appointed actuary in life insurance

The Solvency II framework primarily concerns capital adequacy and risk management. Thus, the actuarial function mentioned in Solvency II does not concern policyholder's protection in relation to fair distribution of funds among policyholders, the contribution principle, or the independent assessment and reporting function that today is an integral part of the obligations of the appointed actuary in Denmark.

The current high level of policyholder protection through the strong platform of the appointed actuary described above could disappear, unless some of the rights and responsibilities of the appointed actuary institution are maintained after adapting the Solvency II framework – a consequence that is not intended according to the overall objective of the Solvency II framework.

The table below compares the actuarial function to the role of the appointed actuary as outlined in the draft proposal.

Statutory obligations	Actuarial function	Appointed actuary in life insurance
Specific person	No	Yes
Underwriting policy	Have an opinion	Monitor the compliance of the technical basis Express an opinion in the report to FSA and the board.
Data quality	Responsible for assessment	Monitor and communicate Responsible for assessment and report to FSA and the board
Annual report	Yes	To the FSA and to the board
Technical provisions	Coordinate, i.e. operational task	Review (responsible for an assessment and expressing an opinion).
Risk management	Contribute	State an opinion specifically regarding risk issues relating to the technical provisions
Possible to outsource	Yes	No
Present at board meetings	No	Yes
Communication of risk	Yes	Yes, specifically regarding risk issues relating to the technical provisions
Internal monitoring	No	Yes
External audit	No	Yes, implicitly through the right and obligation to access all relevant material
Fit and proper	Yes	Yes
Hired & Fired by	Director/everyday management	Board

Fit & Proper

Today, the legislation states explicit fit and proper requirements to the appointed actuary. It is the responsibility of the Board of directors to ensure compliance.

Also in the future there will be fit and proper requirements to the head of the actuarial function. This implies that he/she has to prove adequate professional qualifications, knowledge and experience thereby enabling sound and prudent management (fit). Further, the head of the actuarial function needs to prove good repute and integrity (proper).

Whereas this apparently corresponds to the requirements of the appointed actuary today, it appears that the fit and proper requirements under Solvency II will change from a formal requirement only of past experience (one size fits all) to a more specific evaluation of the person’s capabilities in a specific position, taking into account the complexity and responsibility of this specific position.

The actuarial function compared to the non-life/reinsurance actuary

Today, the actuary does not have a statutory role for non-life insurers and reinsurers. The actuarial skills are often found in pricing, reserving and risk management.

In the draft proposal, the actuarial function takes the responsibility for reviewing the technical provisions, the responsibility for assessing data quality, opinion of underwriting policy. Furthermore, the actuarial function must communicate their view on the risk exposure. These responsibilities constitute a significant strengthening of the governance structure both in terms of calculating the technical provisions and evaluate the risk exposure and volatility of the technical provisions.

The risk management function in Solvency II

In order to evaluate the current statutory regime with the Solvency II framework also the risk management function has been briefly examined in order to evaluate if any of the current obligations of the actuary has been moved to the risk management function.

The risk management function and governance

The Solvency II directive does not explicitly provide any detailed descriptions of any statutory obligations of the risk management function. In general terms, however, the risk management function should assist executive management in managing and controlling risk, and in terms of organisational structure it is stated that the risk management function must be an integrated part of the organisation.

Although the statutory tasks of the risk management function remains somewhat unclear, it is a strong signal in the future legislation that risk management must be an explicit and integral part of business of an insurer.

The ORSA Process

The Solvency II framework also contains specific guidelines for the ORSA (Own Risk and Solvency Assessment) process, i.e. specific guidelines for how an insurer must develop its own processes tailored to the specific organisational structure and risk management system to assess the overall solvency needs of the insurer.

In terms of reporting, the ORSA process must produce the following documentation:

- ORSA policy
- Record of each ORSA process
- Internal report on ORSA
- ORSA supervisory report

The guidelines for the ORSA process focus on what should be achieved by the ORSA process rather than on how to perform the ORSA process. Again, this provides little guidance regarding the governance structure supporting the ORSA process, except that the management is directly responsible for the ORSA process.

Considering that the risk management function should assist the management in managing and controlling risk, however, it seems natural to let the risk management function be in charge of the ORSA process. This said, a successful implementation of the ORSA process requires that the risk management function in the future must possess skills not only to evaluate traditional quantifiable risk factors, but also other types of risk, e.g. strategic risk factors and other factors in a more holistic risk perspective.

The risk management function compared to existing legislation

Since neither the risk management function nor the ORSA process exist explicitly in the current Danish legislation, we clearly see both the risk management function and the ORSA process as considerable and valuable statutory improvement in terms of implementing requirements regarding insurers understanding and management of risk – even though the appointed actuary already today has an implicit obligation to comment on the management of risk through the right and obligation to access all relevant material of the company.

The skills of the actuary under Solvency II

Looking into the technical competence and skills required to successfully manage the actuarial function, the risk management function, and the role of an appointed actuary, it becomes clear that although these functions are different and plays different roles in the organisation, they require somewhat overlapping technical skills and knowledge.

It also becomes clear that the actuarial profession seem fit to successfully perform all of these statutory positions mentioned in the Solvency II legal framework due to the actuarial education and working experience stemming from the areas covered by the Danish actuaries today.

Thus, the actuarial profession seem are well positioned to contribute to the implementation and quantitative and qualitative analyses and the reporting required by the Solvency II regulation. Actuaries are also highly qualified to add value to the management of the business by providing objective opinion based on their expertise and thereby ensure that the Board of directors and executive management are in control of the risk exposure of the insurer.

Here we observe that in terms of transparency, consistency and comparability of insurers, the Solvency II framework more specifically requires communication skills of the actuaries than the current legislation.

Regarding the risk management function, the enterprise risk management approach of Solvency II will formalise a role taken more implicitly by the actuary today.

In these areas, implementation of Solvency II might enhance the need for additional training and education for many actuaries. This, however, does not affect the overall conclusion that actuaries are well qualified to take responsibility of a successful implementation of the Solvency II framework.

Recommendations

General recommendations

In general, the Solvency II is an important measure to protect policyholder’s rights and to reward effective risk management of insurers. The obligations of the actuarial function are stated explicitly and address the most important actuarial topics in terms of securing adequate reserves and capital requirements.

We observe that most of these obligations are not explicitly followed by corresponding rights in the Solvency II framework. For instance it is not specified in the draft proposal that the actuarial function should be given the right to access all relevant information. Likewise, it is also unclear whether the actuarial function can be organised with a direct reference to a member of executive management. For Danish appointed actuaries in life insurance today it is explicitly the case that they have access to all relevant material and that they report to the Board of Directors.

In the Danish implementation of Solvency II we would therefore recommend that persons giving and reporting an independent opinion related to actuarial subjects are equipped with specific rights and protections to enable these persons to exercise their obligations in an effective manner.

Given the wide range of scale and level of complexity in the insurance sector we support the flexibility in the Solvency II framework regarding the organisational setup and a possible integration of the different functions required by Solvency II. Close relations between the actuarial function and the risk management function – and the appointed actuary in life insurance companies – will support the different functions in co-operating and supporting each other in meeting the various requirements of each role and be familiar with what is required of each role.

However, close relations may also provide challenges regarding conflicts of interest. We therefore see a potential need for guidelines on how to balance the need for sharing knowledge, and at the same time to deal appropriately with the potential conflicts of interest when Solvency II is implemented.

Moreover, we recommend that the FSA requires all insurers to specify and document how they have dealt with potential conflicts of interest, especially between executive management and persons giving and reporting an independent opinion.

We also recommend insurers to be obliged to specify and document how they deal with the prudent person principle.

Lastly, we recommend that the revised fit and proper requirements are implemented for both the head of the actuarial function, the head of the risk management function, and for life insurance also the appointed actuary in order to ensure strong individuals in these positions.

Life insurance

As described above the current role of the appointed actuary is broader than the role of the actuarial function under Solvency II. Therefore, we foresee a continued demand after the introduction of Solvency II for policyholder protection in relation to the principle of fairness and adequateness in general, and more specifically in relation to fair distribution among policyholders as governed by the current contribution principle for with-profit schemes .

We see clear advantages in not preventing the appointed actuary from being an integrated part of the business – as opposed to being an independent body – in order to maintain deep insight of the business drivers and risk factors embedded in the business. Even though not a necessity, being part of the business and perhaps also heading the operational part of the actuarial and risk management function supports the ability to evaluate the data quality, the quality of the sales processes, administrative routines, IT etc. Thus, being integrated in the business will provide the appointed actuary with sufficient knowledge and influence to exercise the independent reporting role in an effective way.

Moreover, we recommend that the appointed actuary maintains the existing direct obligations and rights to independently express his/her opinion about subjects related to the operational part of the actuarial and risk management function according to Solvency II, and report this to the executive management and the Board of directors.

We also recommend that the appointed actuary keeps the obligations and rights to communicate and report directly with the FSA. Consequently, to ensure independent control and avoid conflicts of interests we therefore recommend that the appointed actuary keeps the current direct reference to the Board of directors and not to the executive management.

Non-life insurance

For the first time in Danish non-life insurance industry, it becomes a legal requirement of the insurers to have an actuarial function as well as a risk management function due to introduction of Solvency II. We support this strengthening of the governance structure both in terms of calculating the technical provisions and evaluating the risk exposure and volatility of the technical provisions.

We recommend that the obligation of expressing an independent opinion is supported by both corresponding rights and a governance framework supporting the obligation.

However, we also see that a successful implementation must pay some respect to the wide spectrum of scale and level of business complexity within the non-life industry.

Concluding remarks

As mentioned above, we welcome the increased focus on the actuarial function and the strengthening of the role of the non-life actuary. We also believe that the current governance surrounding the role of the appointed actuary should be maintained after implementation of Solvency II to further support the main goal – the policyholder protection. Also responsibilities of expressing an independent opinion should be followed by corresponding rights and protection.

That said, we generally welcome the Solvency II framework as a significant improvement of the statutory risk management and policyholder protection requirements. We also believe that the implementation of the Solvency II framework will generally improve insurers awareness of risk embedded in the insurance business and we as actuarial profession look forward to participate in this work.