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The Changing Face of Regulation

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AUDITING SOLVENCY FOR INSURANCE COMPANIES: SOME PRELIMINARY CONSIDERATIONS

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The EU's Solvency II capital adequacy and risk management regime will apply (from 1st November 2012) to insurers and reinsurers who, when measured gross, exceed premium income of €5 million or technical provisions of €25 million. The Solvency II Directive will aim to simultaneously reduce the likelihood of corporate failure, significant customer loss and disruption of the insurance market.

Much level 2 key guidance on implementation was published throughout 2009 by the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) and draft level 3 guidance, on pre-applying for internal capital models, followed in January of this year. Amongst the questions likely to arise in the minds of internal auditors and Non Executive Directors is: -

"What does this vast body of regulation & guidance mean to a thoughtful and pro-active insurance auditor?"

The evolving risks and regulatory expectations inherent in the Solvency II Directive and the FSA's interpretation of it are intertwined around the framework that is built upon the three pillars.

Pillar 1 sets out the quantitative requirements for determining capital adequacy and the role of the internal model, from which Pillar 2 sets out the corporate governance, enterprise risk management, internal control and capital add-on implications. The Own Risk and Solvency Assessment (ORSA) is pivotal to management demonstrating its control over the risk management process. Then Pillar 3 covers the reporting requirements and public disclosure.

Underpinning the above is a clear and pressing need for strong documentation and audit trails.

The Lamfalussy four-level process

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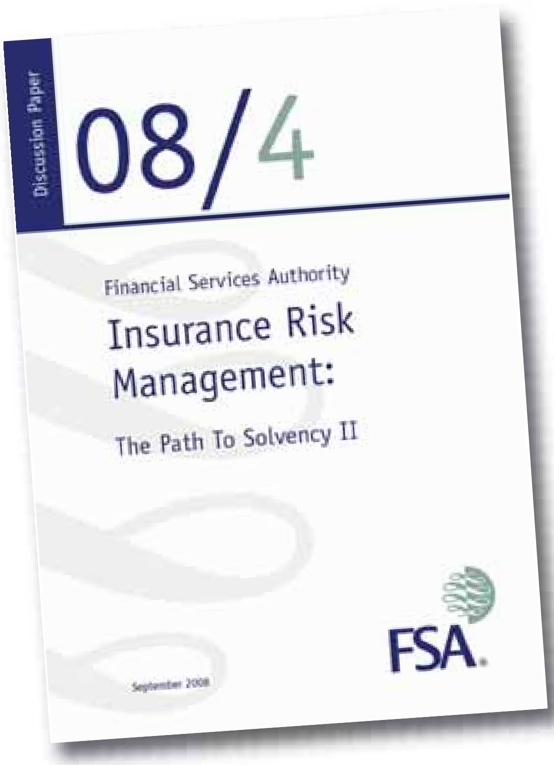
(framework, implementing measures, guidance and enforcement) that we saw in building the EU implemention of the Basel 2 regime for banks, directs the various regulatory bodies, including the Financial Services Authority (FSA) and their co-operation across Europe.

This FSA Discussion Paper 08/4 comments that "**the use of an economic/realistic balance sheet and internally-modelled individual capital assessments based on a defined level of confidence, share some similarities with the Solvency II framework. Firms should note that while the essential concepts and objectives driving the Individual Capital Adequacy Standards (ICAS) regime are similar to those underlying Solvency II, many detailed requirements will differ from those with which they are familiar**".



Ahead of implementation in November 2012, a quick review of the CEIOPS Level 2 Consultation Papers will indicate both the urgency and the Board level expectation of the role to be played by we internal auditors.

In 08/4 'Insurance Risk Management: The Path to Solvency II' and their Feedback Statement 09/1 on it, the FSA expect internal audit (listed chapter by chapter under 'key stakeholders') to "**contribute**" to their companies' implementation of Pillars 2 and 3, whilst being aware of their Pillar 1 issues. They also expect internal audit to "**be aware**" generally of the supervision implications for insurance firms.

In their Solvency II – IMAP Update the FSA say that they are undertaking thematic reviews on risk management, use test, data management and model validation, including valuation of assets and liabilities, which will assist in carrying out Internal Model Approval Process related work.

So a review of the consultation papers mentioned above, from an internal audit perspective, very quickly proves to be enlightening:-

CP33 "System of Governance"

Solvency II allows firms to use full or partial internal models for the calculation of their Solvency Capital Requirement, as an alternative to using the standard formula. The internal modelling activity needs to be integrated into the firm's risk management activities. (DP 08/4). Firms intending to seek approval for their internal model must demonstrate compliance with mandated tests and requirements, including use, statistical quality, data, documentation, calibration and profit and loss attribution. Activities such as sensitivity, stress and scenario testing will also need to be evidenced.

The FSA's DP 08/4 says, that "**to aid their transition from the ICAS regime, we suggest that firms should be undertaking gap analyses now to identify any shortfalls in expected compliance with the emerging Solvency II requirements.**"

Regarding Internal Audit Governance, Article 47 of the Level 1 (framework) text states that "**Insurance and reinsurance undertakings shall provide for an effective internal audit function**"; objective and independent from the operational functions. It shall evaluate the adequacy and effectiveness of the internal control system and other elements of the system of governance. Data auditing should not be performed by the actuarial function but by the internal audit function. Interestingly, the management body is ultimately responsible for the reliable and adequate calculation of the technical provisions and needs to form its own opinion. It seems likely that they will want an opinion from the internal audit function, having done both the data and system auditing. Also relevant to this is the expectation that internal audit "**shall at least annually produce a written report on its findings to be submitted to the administrative or management body. The report shall cover at least any deficiencies with regard to the efficiency and suitability of the internal control system as well as major shortcomings with regard to the compliance with internal policies, procedures and processes. It shall include recommendations on how to remedy inadequacies and also specifically address, how past points of criticism and past recommendations have been followed up.**"

Supervisors have the ability to set a capital add-on where the supervisor believes a firm is not holding adequate capital (DP 08/4). In addition, Article 37 provides for a capital add-on in situations where the system of governance within a firm does not meet the standards required. It is a short-term measure to give the firm an incentive to remedy governance deficiencies and help protect policyholders.

CP56 "Tests and Standards for Internal Model Approval"

Use test training: Article 120 (Level 1 framework) governing the Use Test says that the internal model will play an important role in the system of governance particularly the risk-management system and the economic and solvency capital assessment and allocation processes. In addition,"**the administrative, management or supervisory body shall be responsible for ensuring the on-going appropriateness of the design and operations of the internal model, and that the internal model continues to appropriately reflect the risk profile of the insurance and reinsurance undertakings concerned.**"

The Internal Model Foundation Principle, is that "**the undertaking's use of the internal model shall be sufficiently material to result in pressure to improve the quality of the internal model.**" Following this is the

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Principle 1 requirement that "**senior management and the administrative, management or supervisory body shall be able to demonstrate understanding of the internal model.**" Then "**CEIOPS considers that this understanding may be gained from training provided by the undertaking. Each member of the senior management shall have an overall understanding of the internal model as well as a detailed understanding in the areas where they use the internal model.**" Six examples for which "**The administrative, management or supervisory body shall give evidence of an overall understanding of the internal model**" are stated as follows:-

1. structure of the internal model and fit with their business model and risk-management framework;
2. methodology;
3. dynamics of the model;
4. the limitations of the model;
5. diversification effects and dependencies;
6. scope and purpose and the risks covered and those not covered.

They "**shall not manipulate the internal model in order to obtain outputs that do not appropriately reflect its risk profile.**" It will be for Internal Audit department to confirm that training has been conducted. Note that CP advises that "**decision makers shall be aware of the shortcomings of the internal model and tailor their decisions accordingly**" and envisages that "**results are communicated to the board members in a way that allows them to take responsibility for the results.**"

Model governance: The application for approval to use the internal model to calculate the SCR must be approved internally before submission to the FSA. This key responsibility includes the whole process from the undertaking starting to consider whether to apply for internal model approval. "**The high-level governance for the internal model shall therefore include appropriate controls and documentation of this process. A key part of the internal model governance processes shall also be the controls and documentation around development of the internal model change policy.**" This will tend to require internal audit to review on the internal model governance, controls and documentation.

The review of the internal model validation policy is also important "**The validation does not only apply to the calculation kernel to calculate the SCR, but shall encompass the qualitative and quantitative processes of the model.**" Parts of the validation activity potentially may be carried out by internal audit. This will vary from organisation to organisation as "**the risk management function shall be tasked with the validation of the internal model. Nevertheless, certain parts of the validation process may be carried out by other parts of the undertaking, as long as there are clear lines of reporting and the risk management function retains overall responsibility for the validation process.**"

Generally the model should not be validated by any function responsible for its development

Regarding data directory and quality; population and accuracy control over data will always be of paramount concern to internal audit. The "**undertaking shall compile a directory of any data used to operate, validate and develop their internal model. In doing so, they shall specify in detail the data source, its characteristics and usage**"; also to "**further specify its own concept of data quality**" and "**define the abstract concept of data quality in relation to the various types of data in use**". Clarity of the impact of contractual options & guarantees and documentation on both the internal model and data management are also key. The need "**to identify, collect and model the risk of all relevant financial guarantees and contractual options, taking into account the key features these guarantees and options possess.**" "**The documentation shall contain explicit information about data management**" which may include databases and data flows through the internal model. Furthermore, "**the documentation of the internal model shall provide an audit trail to enable effective audit work to be conducted.**"

Apparently, most FS 09/1 respondents identified data quality as a real challenge in the transition to Solvency II and therefore a source of significant costs. They also felt that developing documentation for actuarial models would be particularly challenging and costly. It was a consensus view that the other main areas that could generate additional costs are the ORSA and internal models (including the link to risk management and the use test).

Documentation

The documentation of an internal model needs to be thorough, sufficiently detailed and sufficiently complete to satisfy the criterion that an independent knowledgeable third party could form a sound judgment as to the reliability of the internal model. The documentation should include an overview of the historical development

of the internal model, documented policies, controls and procedures, written responsibilities and accountabilities, to be clearly understood by all incumbents and reviewed at least annually; together with a description of technology and software tools and how data flows through the internal model and much more.

CP 80: Draft CEIOPS Level 3 guidance on Solvency II: 'Pre-application process for Internal Models,' is helpful here. It states that some of the most useful evidence that the internal model meets the requirements will include:-

1. senior management understanding of the internal model;
2. how the internal model is used in decision-making processes;
3. techniques used in the calculation of parameters and model distributions

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and how risks are aggregated;
4. how profit and loss attribution is a tool for validating the internal model, managing the business and improving the internal model;
5. validation policy;
6. documentation;
7. use of any external model and data.

Aggregation, diversification and fat tails: Particular areas of difficulty for internal audit arise with regard to risk aggregation and diversification effects. The well known fat tail phenomena of the "**normal distribution**" curve, the greater actual frequency of extreme events than was predicted by historical modelling techniques and the inter-play between extreme events challenges us (and everyone else).

The use of Auditors' judgement is vital where the scarcity of information available makes it more challenging to demonstrate compliance of the aggregation mechanism and the resulting model outputs. If, for example, the aggregation mechanism results in increased uncertainty regarding the calculated SCR, it may be necessary to take additional measures to ensure that it is still equivalent to the level of protection set out in Article 101 (Solvency Capital Requirement - which corresponds to 99.5% Value at Risk). Will this be readily auditable given that we are considering giving positive assurance that negative events will not be worse than pre-set parameters suggest, in any more than one year in two hundred?

CP58 "Supervisory Reporting and Public Disclosure Requirements"

The Solvency and Financial Condition Report has to be consistent with the Report to Supervisors sent to the Financial Services Authority; another area for suitable internal audit assurance.

The SFCR is to be a public report showing information to "**enable the public to analyse their solvency and financial condition.**" The SFCR must be "**appropriate and consistent with the information provided under the Report to Supervisors.**" CEIOPS say they are developing quantitative reporting templates and intend to specify at Level 3, the detail on these templates, all of which will be included in the RTS and some of which will also be disclosed in the SFCR.

The Solvency and Financial Condition Report disclosure policy, as set out in Article 55(1), should have "**appropriate governance procedures and practices in place so that the information publicly disclosed is complete, consistent and accurate.**"

Own Risk and Solvency Assessment (ORSA)

This becomes a key part of the risk management process and of great interest to internal audit. It requires, inter alia, "**a description of how the ORSA process and outcome is appropriately evidenced and internally documented as well as independently reviewed.**"

Under Article 45, firms are required to undertake an assessment of the risks they have within their business and the level of solvency required to mitigate them. CEIOPS defines it as "**the entirety of the processes and procedures employed to identify, assess, monitor, manage and report the short and long term risks a (re)insurance undertaking faces or may face and to determine the own funds necessary to ensure that the undertaking's overall solvency needs are met at all times**".

The FSA advise that the ORSA will "**provide supervisors with an early indicator of the firm's solvency position, as the insurer may breach its economic capital target level before it breaches its regulatory capital requirement.**" The ORSA is an assessment of firms' own risk appetite, thus "**a drop in economic capital may trigger discussions around the possibility of derisking.**"

The Report to Supervisors is a stand-alone document, which does not require reference to any other document in order to be understood by the supervisor. It should contain all the information provided

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annually in the Solvency and Financial Condition Report. Thus, consistent with the SFCR, "**an undertaking shall provide a description, separately for each category of risk, of the risk exposure, concentration, mitigation and sensitivity**":

C.1 Underwriting risk;
C.2 Market risk;
C.3 Credit risk;
C.4 Liquidity risk;
C.5 Operational risk;
C.6 Other risks;
C.7 Any other disclosures.

It requires further details, to explain to the supervisor the undertaking's risk exposure, concentration, mitigations and sensitivity for the above risk categories. "**This information should include any material future anticipated risks.**" Also important are financial instruments, derivatives and off balance sheet transactions or similar arrangements.

In Conclusion

CEIOPS expects internal audit to report annually on its findings. The Financial Services Authority expects internal audit, a key stakeholder, to "**contribute**" to Pillar 2 and 3 risk management and report compliance, while being aware of Pillar 1 capital adequacy quantitative requirements. I do not see this awareness as being passive. Internal audit will recognise the importance of its determining, gaining comfort over and later testing, the information in the key reconciliations between the risk management system, the internal model, the Own Risk and Solvency Assessment, the Solvency and Financial Condition Report and the Report to Supervisors. This should cover both hard numbers calculated and also variables such as risk exposure, concentration, mitigation and sensitivity. The capital requirement split, analysed by risk category reflecting asset classification and analysis will, in my view, be particularly important.

Solvency II allows firms to use internal models to calculate their Solvency Capital Requirement, as an alternative to using the standard formula. This internal modelling needs integration into the firm's risk management activities. Evidence of people's understanding of the internal model and how it links into business models and the risk-management framework, specifically, the scope and purpose of the risks covered, will become key across the organisation. Back in 2008, firms were encouraged to perform gap analyses to identify any shortfalls in expected compliance with the emerging Solvency II requirements. Clear communication of the rectification steps is implicit.

The Head of Internal Audit may wish to anticipate, sooner rather than later, the reporting of internal audit's Solvency II compliance concerns and how they are being addressed, prior to the various stages of management sign off. The application for approval to calculate the Solvency Capital Requirement using the internal model is best done after any use of any external models and their data have been documented and explained and the Use Test shows that the internal model will play an important role in corporate governance.

I feel that particular areas of attention for internal audit relate to risk aggregation and diversification effects, the greater actual frequency of extreme events than normal distribution curves often predict and the inter-relationship of extreme events. As well as worrying over fraud patterns and the likelihood of control circumvention, data auditing standards should be re-reviewed and let us not forget the clear need throughout for strong documentation and audit trails.

In my next article I will consider, inter alia, auditing the Solvency II project, control over out-sourcing and reliance on third parties, as well as challenging the key areas for effective change management.

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