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Under Solvency II, all models are internal, however some are more internal than others…

For a long time, many (re)insurance companies have realized the need for risk-based valuations and solvency capital measurement and have started developing internal economic capital models which suit their needs. This is without prompting from regulators and rating agencies. Why? Such models provide a common measurement basis across all risks (e.g. same methodology, time horizon, risk measure, level of confidence, etc.) and are a powerful tool for strategic decision-making, for example in capital allocation and pricing. In short, the CRO believes internal models are a powerful tool to enhance company risk management and to better embed risk culture in the company. Yet, internal models continue to come under considerable criticism and suspicion. The financial crisis, of course, has only exacerbated these issues and concerns.

Under Solvency II, (re)insurance companies have the option to elect the Standard Model as defined under Solvency II or apply for approval to use Internal Models. Regulatory authorities have spent a lot of time and attention on the admissibility requirements for granting Internal Model approval. Areas of interest include:

- Management sponsorship and oversight
- Full documentation for all methods, assumptions, processes and controls
- A robust control and review framework to ensure a certain level of quality
- A control and approval process around model changes
- Assurance that the model is sufficiently embedded into all key business processes ("the Use Test")

The CRO Forum agrees and has actively supported these admissibility criteria. However we sense that some may be under the impression that the Internal Model and Standard Model are at opposite ends of the spectrum when in fact they are remarkably similar in many ways and most of the attention internal models have attracted equally apply to the Standard Model.

- The foundation for both models is a market consistent valuation of the balance sheet with the SCR being measured based on stresses on this balance sheet. The balance sheet is likely about 90% of the accuracy answer for Solvency II. The same balance sheet standard should apply to both Standard Model and Internal Model adopters.
- Both forms of models need to be a reasonably accurate depiction of the underlying business (product mapping, policy grouping, use of estimation, etc)
- Both models will need to accurately reflect the value of the underlying business such as utilising stochastic valuation for the assessment of complex options (for products and model points modelled, do the models produce sufficiently accurate market consistent valuations?)
- Both require detailed assumptions such as for underwriting risks (mortality/morbidity, property/casualty, policyholder behaviour, expenses, etc)
- Documentation of how the model is constructed and supporting assumptions used is equally needed for both model options.
- A risk-based internal control framework including model validation should be needed for both forms of models (controls around model changes, assumption setting processes, projections, sensitivities, reporting, etc)
- Both models should be sponsored by management of the company and management should be in a position to interpret, communicate and present the results including the current balance sheet position, MCR, SCR and attribution of results (cause and effect), etc.

What is different for companies using internal models is that there is an even more granular, more detailed and accurate identification, assessment and aggregation of risks. These areas are mostly related to the calculation of the SCR (the remaining 10% answer). In order to deviate from the standard parameterisation of the Standard Formula SCR, supervisors rightfully want to ensure that the Internal Model is sufficiently embedded in key business processes by company management in order to ensure management stands behind the results. The CRO Forum supports this requirement. However, all issues around governance of the models, whether Standard or Internal, should attract equal attention. In summary, even the Standard Model in Solvency II is internal albeit less internal then its Internal Model counterpart.