

FIT Briefing

An Update from the Financial Integration Team

April 2007

Solvency II: QIS 3 is out now

This briefing provides an update of the process that will lead to the implementation of Solvency II in Europe in 2009 or 2010. As reported in previous briefings, the European Commission has requested the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) to advise on the new Solvency II framework. CEIOPS is responding by looking at various aspects of possible regulation and to-date has organized three waves of “calls for advice” that include supporting Quantitative Impact Studies. The Quantitative Impact Study 3 (QIS 3) was released on March 30 and seeks responses from affected insurance companies on the standard model (as refined based on input received from QIS 2) that is to be used to calculate the Solvency Capital Requirement. This briefing contains an overview of QIS 3 and the services Guy Carpenter can deliver in this area.

QIS 3 – Executive Summary

QIS 3 was published on March 30, 2007 covering the following key topics:

- Scope
 - QIS 3 will take place during the period April to June 2007. Companies are encouraged to complete the QIS 3 calculations and submit the results to their local supervisor for CEIOPS further evaluation and refinement of the standard formula.
 - QIS 3 will test the impact on solo undertakings as well as groups.
 - Focus of QIS 3 is on calibrating the standard model to be used in Solvency II. Participants are however invited to supply capital calculations based on internal models as supplementary information.
- Design principals of standard model
 - Modular approach of QIS 3 slightly modified compared to QIS 2.
 - Diversification effects are taken into account within each risk-module and in the aggregation process to derive an overall capital number.
- Calculation of eligible capital
 - In determining eligible capital, assets and liabilities are measured at fair value. Eligible capital is categorized in three tiers:
 - Tier 1 capital: Highest quality of eligible capital.
 - Tier 2 capital: Provide a certain degree of loss absorbency.
 - Tier 3 capital: Loss absorbency only in particular cases.
- Significant elements of standard model
 - Risk measure is VaR, with a 99.5% confidence level, for a 1 year time horizon. This measure represents a significant change from QIS 2 which used a risk measure of TVaR with a 99% confidence level on a 1 year time horizon.
 - Market values are used for assets and hedgeable liabilities.
 - For non-hedgeable technical provisions the valuation is equal to the sum of the best estimate of reserves plus a risk margin. The risk margin for technical provisions is

- calculated according to a cost-of-capital methodology, which replaces the percentile approach used in QIS 2.
- Non-life underwriting risk consists of one combined category for premium and reserve risk and one category for CAT risk.
 - Volatility calculations for premium and reserve risk no longer include the “size factor” used in QIS 2.
 - For non-life CAT risk, regional scenarios provided by local regulators as well as prescribed trans-regional scenarios have to be considered. Insurance companies will need to estimate the effect on their net assets and liabilities resulting from the CAT scenarios, taking into account the risk mitigation effect of reinsurance.

Guy Carpenter Recommendations

Guy Carpenter recommends that all insurance companies should evaluate their solvency capital requirements resulting from using the standard model. For companies without an internal model, this process will provide an insight into their solvency capital requirements under Solvency II and will assist in developing or validating capital strategies that are consistent with their business plans. In addition the results of the calculation may encourage companies to develop an internal capital model should the standard parameters prove to be too conservative and penal.

Also, for companies with an internal model calculating the capital requirement via the standard model will provide a useful benchmark in terms of validating their internal model.

How Guy Carpenter Can Assist

Guy Carpenter can assist in almost every area associated with the evaluation of regulatory, rating agency or economic capital adequacy. Simply put, we leverage a broad set of experience and expertise to help our clients develop and execute their risk and capital management strategies.

MetaRisk[®] XMR[™] – Guy Carpenter’s approach to internal models

While QIS 3 defines the standard model to be used in the absence of any other model, CEIOPS recommended that companies should develop their own internal models which, if accepted by the regulator, will then be the platform used to determine their capital numbers. In light of this, Guy Carpenter is enhancing its risk and reinsurance analysis platform, MetaRisk XMR, to provide the Enterprise Risk Management features required for a Solvency II internal model.

With MetaRisk XMR version 2, targeted for release in July 2007, MetaRisk will be able to provide risk distributions for each of the key risk areas, as well as an overall combined risk distribution.

- Underwriting Risk – the uncertainty in current year results from CAT and Non-CAT perils.
- Market Risk – the effect of interest rates, stock valuations, property and cash values on the net asset value of the company.
- Reserve Run-Off Risk – the uncertainty associated with prior year liabilities.
- Credit Risk associated with Reinsurance Recoverables.
- Distribution measurements on all the key variables identified within Solvency II, as well as on most financial statement measurements that would be used by an analyst, working with an insurance company CFO, to determine the risk exposure and capital requirements of the company.

MetaRisk can provide clients with the information needed for Solvency II and is designed for utilization as an internal model (or partial internal model) in a Solvency II environment, subject to the needs and requirements of any particular client.

Who to Contact at Guy Carpenter

For more information, contact your Account Executive or one of the Financial Integration Team members listed below.

- David Lightfoot, Managing Director, Seattle
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Guy Carpenter's Financial Integration Team

*Guy Carpenter has brought together experienced finance, accounting and actuarial professionals from its broking and InStrat® groups and formed a **Financial Integration Team (FIT)**. The principal objective of the Financial Integration Team is to enhance the financial perspective of the InStrat tools and methodologies and follow accounting and regulatory issues that may have a material impact to the insurance industry in general and the reinsurance process in particular. The FIT will communicate such issues to InStrat and Broking colleagues through periodic briefings such as this. The FIT includes members from the UK, Continental Europe and the United States.*

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