MALTA Country Report

The Fourth Quantitative Impact Study (QIS4) for Solvency II

MFSA
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Contents

1. Introduction

In order to harmonise and strengthen the European supervisory framework, the European Commission ('the Commission') has issued a directive proposal for a modern risk-based supervisory framework for the supervision of European (re)insurance companies called 'Solvency II.'

The Solvency II Framework Directive proposal was published by the Commission on 10 July 2007. Following the publication of the proposal, a work plan has been agreed between the Commission and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) covering the development and adoption of Level 2 implementing measures and future work to be done on Solvency II. The framework will, following current plans, be implemented in 2012.

The most important feature of Solvency II is its risk-based character; capital requirements are related to the risk profile of an insurance entity. Higher risks will lead to a higher requirement on capital. A second feature is a greater focus on insurance groups (as opposed to separate legal entities). A third feature is the market consistent valuation for assets and liabilities. Finally, Solvency II explicitly allows for the use of internal modeling for the calculation of capital requirements. In order not to impose a too heavy burden on small and medium undertakings, the principle of proportionality, which applies throughout the Directive, allows for the use of simplifications under certain conditions.

As part of the Solvency II project, the Commission has requested that CEIOPS run a number of large scale field-testing exercises, called Quantitative Impact Studies (QIS), to assess the practicability, implications and possible impact of the different alternatives considered. On 31 March 2008, after a three-month public consultation run by the Commission with technical support from CEIOPS, the Commission provided political guidance to CEIOPS on specific issues and published a Call for Advice asking CEIOPS to launch the fourth Quantitative Impact Study (QIS4) on Solvency II. CEIOPS ran the QIS4 exercise from April to July 2008.

Operational arrangements to conduct QIS4 and collate results from insurance undertakings were made by national insurance supervisors separately in each member state, supplemented by a centrally-coordinated collation of groups' results. Results collated at national level were then shared within CEIOPS, which produced an overall CEIOPS QIS4 report which is available on CEIOPS' website: http://www.ceiops.eu/media/files/consultations/QIS/CEIOPS-SEC-82-08%20QIS4%20Report.pdf

The key purpose of this report is to summarise the findings of the Malta QIS4 study. This report aims to be factual, reporting the feedback received from Maltese insurance undertakings that participated in QIS4. Aside from this

objective, the QIS4 study has been carried out alongside many other developments in Solvency II, including the ongoing discussions on the proposed text of the directive.

Objectives of QIS4

A key objective of QIS4 was to study the effect on the own-funds of insurance undertakings and groups. First the value of assets and liabilities are summarised, on a market consistent basis, in the regulatory balance sheet under current CEIOPS proposals for the Solvency II framework. These own-funds are then compared with the proposed capital requirements – the Minimum Capital Requirement (MCR) and Solvency Capital Requirement (SCR) that were also being tested.

The aim of QIS4 was to look at the impact on both individual entities and groups, covering the:

- practicability and suitability of calculations for MCR and SCR capital requirements;
- level of capital needed by insurers;
- suitability of calibrations proposed for establishing capital requirements; and
- state of preparedness of insurers that may wish to use an internal model in Solvency II and the comparability of model results with the standard approach SCR.

The information and data collected from QIS4 should assist greatly in the refinement and further development of Solvency II.

A further objective was to encourage insurers to prepare for the introduction of Solvency II and to identify areas where their internal processes, systems and infrastructure (including data collection) may need to be enhanced.

2. Number, representativeness and quality of responses

The Malta response was considerably higher than that for the previous QIS3 study. The MFSA received 16 completed spreadsheets from individual insurance undertakings, comprising 5 insurance undertakings carrying out life business and 14 insurance undertakings carrying out non-life business as shown in the following tables. These participants were all classified as small insurance undertakings, the criteria being that gross written premiums do not exceed €100million in the case of non-life business and the gross technical provisions do not exceed €1,000million in the case of life business (defined by CEIOPS).

	No. of respondents
Life undertakings	2
Non-life undertakings	9
Pure reinsurers	2
Captives	3
All respondents	**16**

Table 1: Number of respondents by type of undertaking

	No. of respondents	Total market share
Life business	5	95%
Non-life business	14	53%

Table 2: Number of respondents by type of business and aggregate market share of participants

Notes: The final column in Table 2 shows the Malta market share by premium volume (non-life) and provision volume (life) of QIS4 participants.

The overall quality of response was satisfactory and most insurance undertakings completed at least the main data input items in the spreadsheet. On the other hand qualitative responses were generally scant, though it should be pointed out that well considered comments proved to be very helpful. Some individual insurance undertakings made comments on issues that were unique to themselves, or that had not been identified by other insurance undertakings. This report is anonymous and contains only a snapshot of all the comments received, but insurance undertakings should note that each response was considered in full before compiling the detailed country report to CEIOPS and when analysing the views of, and impact on, Maltese insurance undertakings.

Most insurance undertakings were able to complete the spreadsheet by using existing systems, with some refinements to meet the QIS4 specification. Their existing systems had been set up for either the preparation of auditable numbers for the accounts, capital assessment for supervisors, or relevant internal management information.

Many insurance undertakings did take advantage of the facility to use simplifications for key input data in order to reduce time spent, particularly in relation to the calculation of the risk margin and the calculation of the SCR component for counterparty default risk. Overall, insurance undertakings said their figures were reasonably indicative of the likely impact.

Within the overall limitations of this study, the data in this report is believed to be broadly comparable between insurance undertakings and indicates the potential impact on insurance undertakings of applying the QIS4 specification.

3. Data collection issues & level of resources required

On average, companies gave a medium score as an own assessment of the reliability and accuracy of the input data. However, most insurance undertakings reported significant practical difficulties in the collection of the input data. These included:

- Lack of specific historical data;
- Lack of time resources in understanding and obtaining all the data required;
- Lack of human resources in providing financial data outside the normal financial reporting;
- Lack of actuarial expertise;
- Cost of actuarial resources;
- Data not readily available as required – e.g. splits, providing figures net of reinsurance, etc – certain reliable assumptions have been taken to satisfy the QIS4 requirements.

There was a widespread of figures that were provided about the likely resource requirements for the implementation of Solvency II. Resource requirements were measured in person months. The reported overall average additional resources required for a one-off introduction of system and controls are 20.5 person months. An overall average of 2.8 person months resulted for the resources utilised to complete QIS4. The additional resources required for the yearly valuation equalled to 2.8 person months as well.

4. Quantitative results – financial impact

Most insurance undertakings found that they have a lower ratio of eligible capital to required capital under the QIS4 specification when compared with the Solvency I rules. This was to be expected, considering the known deficiencies in the risk sensitivity of the Solvency I requirement.

The ratio of eligible capital to capital requirement is generally lower under QIS4 than Solvency I since capital requirements are significantly higher for all types of insurance undertakings. There is also less variation in the ratios (See Chart 1).

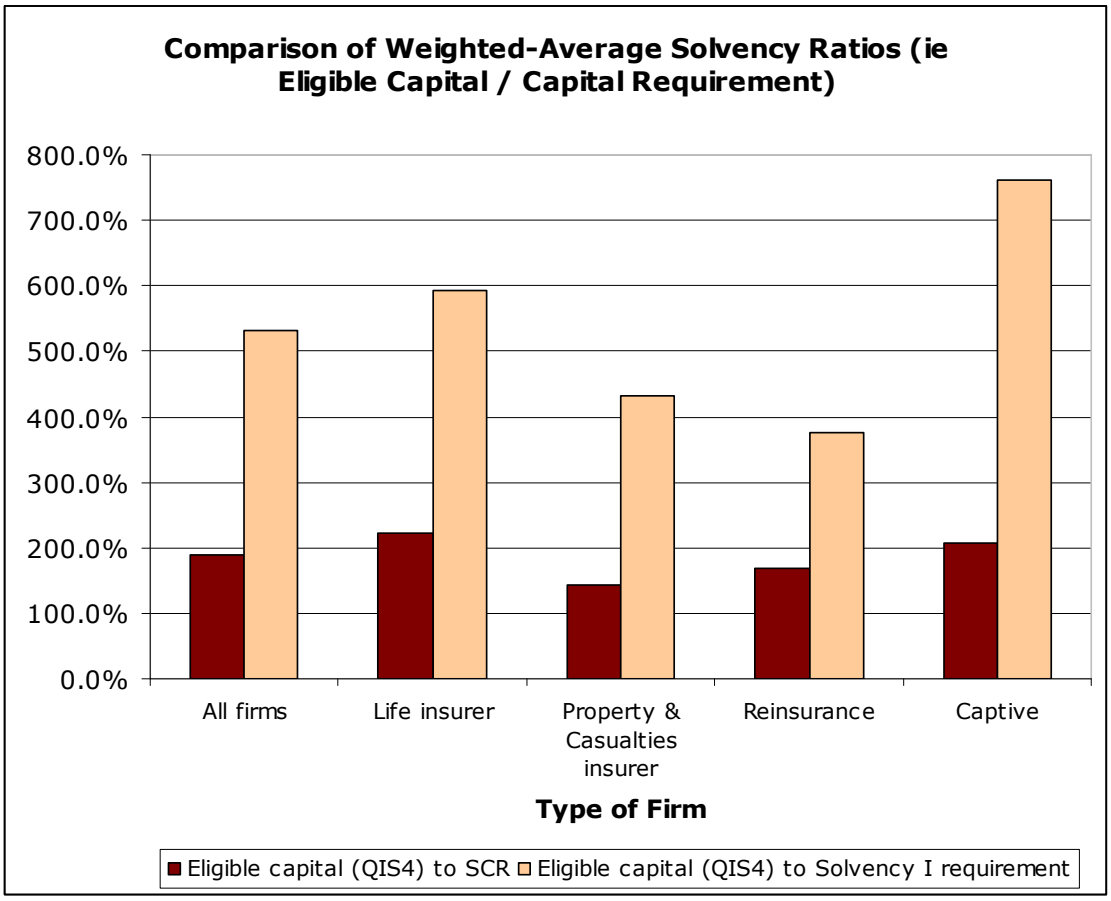

Chart 1

The capital surplus under QIS4 is generally lower than under the current Solvency I with an overall weighted average ratio of capital surplus QIS4 / capital surplus Solvency I of 92%. This ratio is significantly lower in the case of non-life insurance undertakings, with the QIS4 capital surplus being less than half the Solvency I capital surplus (a ratio of 47%).

There were no participating insurance undertakings that would be required to raise capital in order to meet the Minimum Capital Requirement (MCR). Around 90% of the participating insurance undertakings would have sufficient capital to meet the Solvency Capital Requirement (SCR), although this result has to be interpreted carefully in view of the provisional nature of the methodology and calibration in QIS4 and the possibility for insurance undertakings to alter their capital and risk profile before Solvency II is implemented.

5. Valuation of Assets and Other Liabilities

Most respondents did not raise any significant issues relating to the valuation of assets and other liabilities. A common issue that emerged was that the severe capital charges without distinction on unrated financial securities may be a threat to locally listed unrated but stable investment grade equities.

6. Assessment of provisions

Life insurers based the calculation of technical provisions on expected future cash flows. This approach included considerable simplifications and approximations. In the valuation of 'future discretionary benefits' for life insurance policies there appears to be a large amount of subjectivity. In this respect, more guidance could be requested to split the total provisions between guaranteed and discretionary benefits for profit-sharing business.

Non-life insurance provisions were calculated using standard claims run-off triangles (the most commonly used techniques being the chain ladder and the Bornhuetter-Ferguson method). The majority of participants were faced with the problem of lack of sufficient historical data on which to set best estimate assumptions on entity specific parameters.

The calculation of the technical provisions involved also the calculation of risk margins. The calculations of these risk margins in the provisions were one of the weakest areas. In the vast majority companies applied proxies as they were unable to adequately assess own risk margins due to lack of expertise and time. The proxies used in the QIS4 exercise are fixed percentages and hence do not reflect the volatility of the underlying risk portfolio specific to the company.

The QIS4 (best estimate plus risk margin) provisions are, on average, slightly lower than Solvency I (net of reinsurance) provisions, for both life and non-life insurance undertakings and for almost all lines of business. This is an expected result due to the effects of discounting (See Chart 2).

The ratios of non-hedgeable provisions to QIS4 best estimate provisions for life business and non-life business are shown separately in Chart 3.

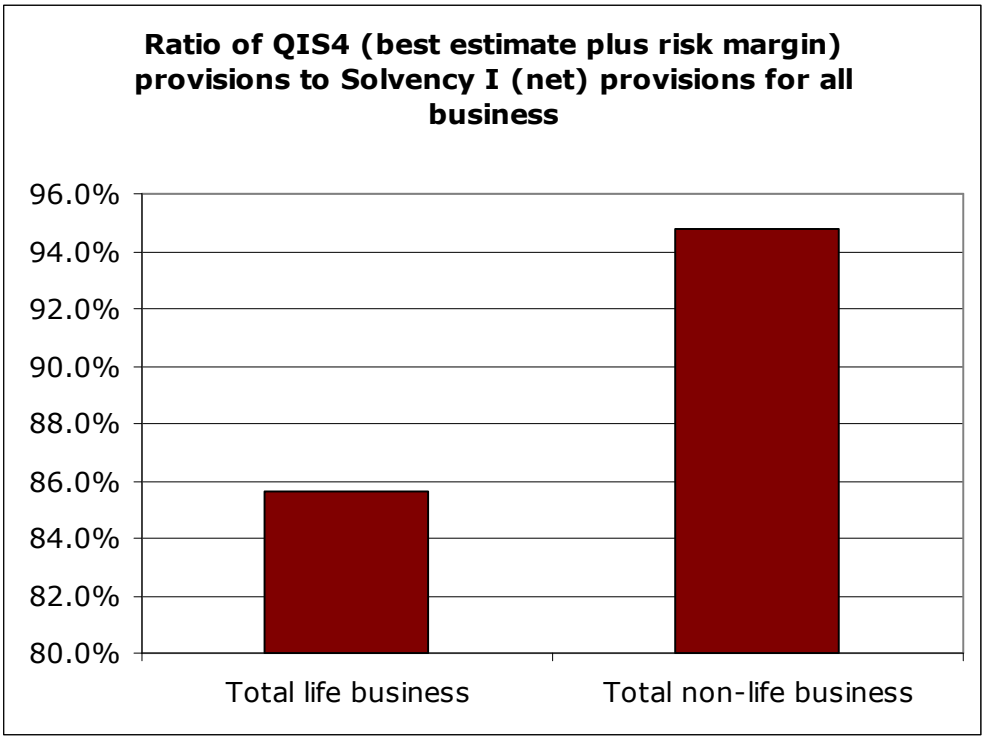

Chart 2

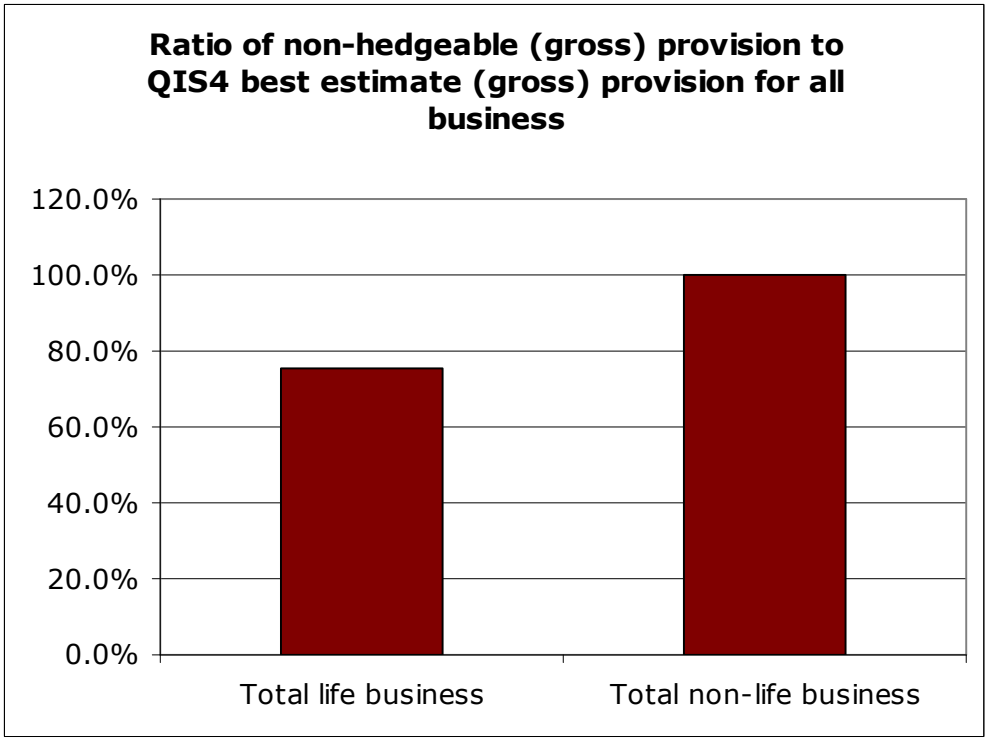

Chart 3

7. Own-Funds

The QIS4 results show that practically all eligible elements were classified as tier 1, 46% of which were common equity capital. In general, all participants have a simple capital structure and as a result there were no major differences between Solvency I and QIS4 in the classification of the elements making up the own funds. There were no undertakings which reported having any surplus funds, ring-fenced funds, hybrid capital or subordinated liabilities.

Most respondents did not raise any issues in their qualitative responses relating to the suitability or practicability of the proposed classification of own-funds. A number of respondents commented that the assessment of own-funds was clearly defined and the methodology adopted for QIS4 was suitable and appropriate.

8. Suitability of methodology for MCR and SCR capital requirements

A. Comparison of MCR and SCR

A primary objective under QIS4 was to evaluate whether CEIOPS' proposed linear approach MCR, with a corridor of a minimum of 20% and a maximum of 50% of the SCR, was a practical approach and provides a reasonable comparison with the SCR. With the SCR intended to be calibrated at 99.5% and the MCR intended to be calibrated at around 80-90%, the value sought for MCR should correspond to approximately 35% x SCR (a standard that is referred to as the 'compact' approach). The methodology that was tested, the 'combined' approach, gave an overall ratio of MCR combined to standard formula SCR of 23.8% (see Chart 4). The combined approach is much less complex and more appropriate as compared to the modular approach tested in QIS3, though participants still expressed the view that the calculation of the MCR remains complex.

The difference between SCR and MCR provides for a ladder of intervention for supervisory purposes (enabling SCR shortfall to be corrected before there is risk of the more significant MCR breach). To provide a sensible basis for supervisory intervention, the methodology for the MCR needs to be adequately responsive to changes in the risk profile of insurance undertakings, to changes in external conditions, to key risk mitigants (such as reinsurance) and to the offsetting effect of the reductions in future bonuses that could reasonably be made in adverse conditions. There also needs to be a reasonably stable and sensible level for the ratio of the MCR to the SCR in order to provide a sensible ladder for supervisory intervention.

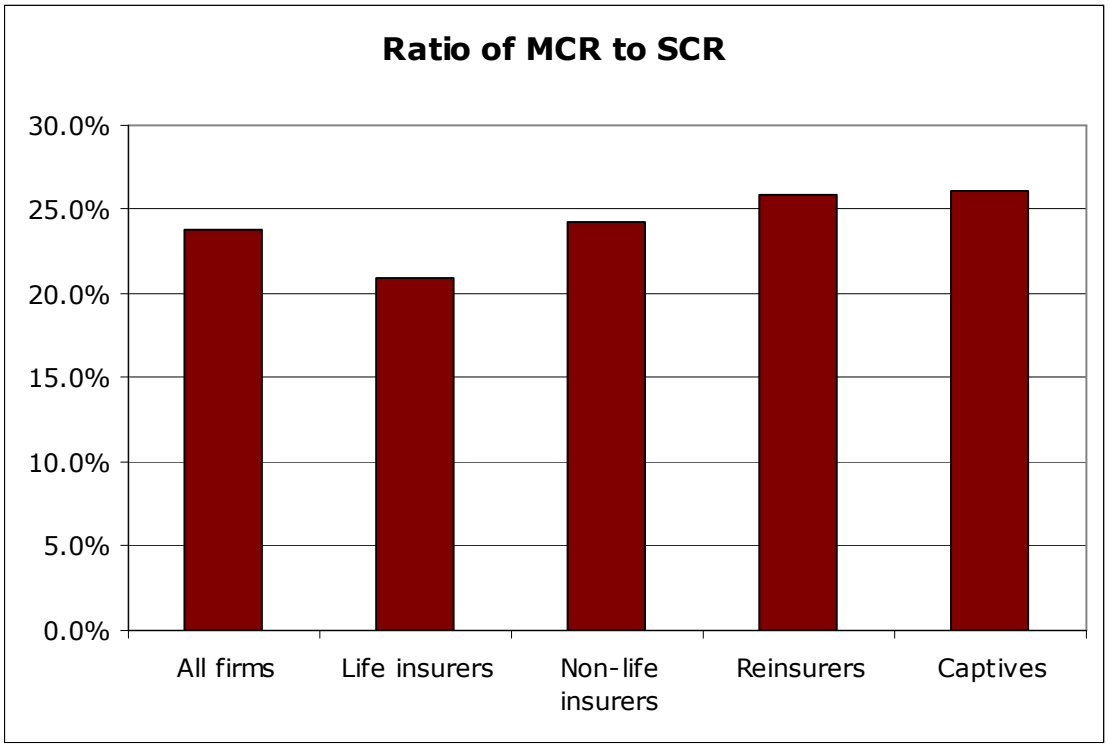

Chart 4

The spread of ratios of MCR to SCR was fairly pulled towards the 20% mark for all types of insurance undertakings, with the MCR equal to the 20% floor for around 37.5% of participants, and with no participants having an MCR equal to the 50% cap (See Chart 5). These results generally reflect the lack of risk sensitivity of the MCR, but the floor and cap relative to the SCR avoided anomalous results.

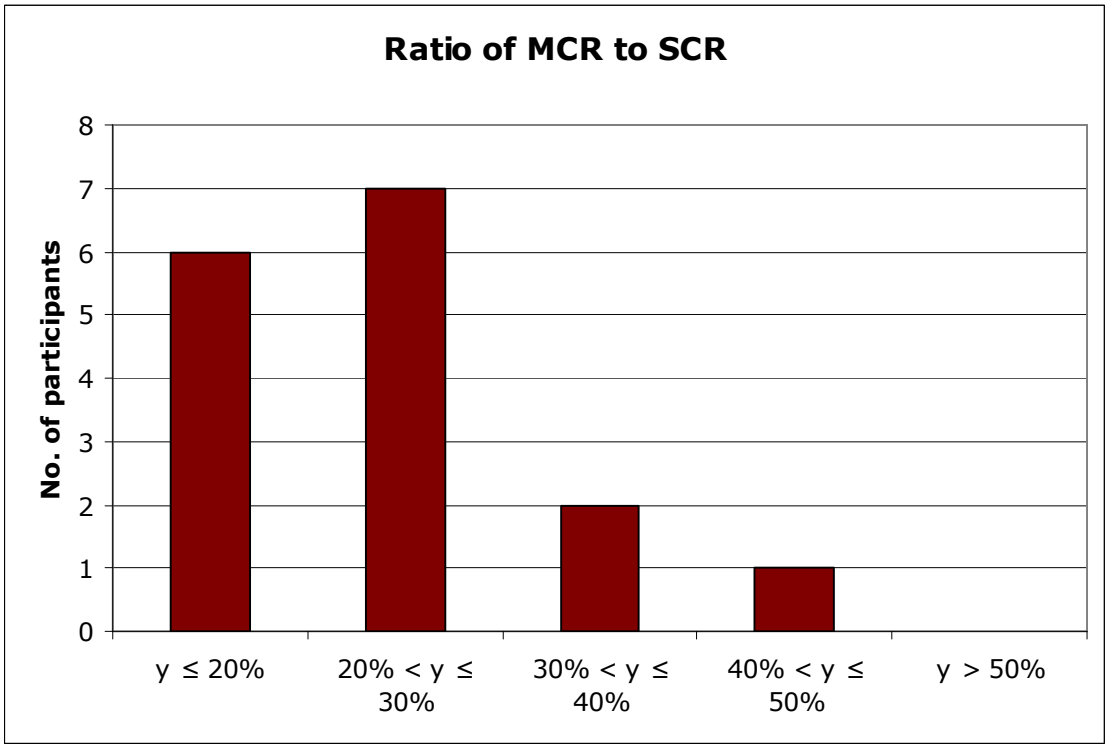

Chart 5

B. SCR standard formula

Below are the main areas for which some general conclusions were drawn, taking into account both the quantitative and qualitative returns.

General

In general, insurance undertakings were keen to see an appropriate balance set between the risk sensitivity of the calculation of the SCR and the practicability of the calculations. Participants commented that the large number of sensitivity tests involved for the different sub risk modules created a significant workload given the resources available. However, insurance undertakings should bear in mind that for material, significant risks, complex calculations are justifiable and indeed necessary. It is for the less material risks where a simpler approach would be preferred.

Quantitative results

The principal component of the SCR for life insurance undertakings was for market risk, which represented on average around 94% of the SCR, with life underwriting risk representing around 18% of the SCR, counterparty risk on average representing around 1% and operational risk representing around 5%. There was a wide spread of results across insurance undertakings reflecting the different business mixes. (Within the underwriting risk

component, lapse risk was the main sub-component representing around 14% of the SCR, followed by expense risk representing around 5% of the SCR). The diversification benefits then accounted for most of the difference between the sum of these components and the total SCR.

The principal component of the SCR for non-life insurance undertakings was for non-life underwriting risk, which represented on average 67% of the SCR. (Within the underwriting risk component, the premium and reserve risk sub-component represented around 45% of the SCR and the Cat risk sub-component around 35% of the SCR). Market risk represented around 20% of the SCR, counterparty default risk around 23% of the SCR and operational risk around 4% of the SCR. The diversification benefits then accounted for most of the difference between the sum of these components and the total SCR.

Counterparty default risk

There were some concerns that the assumed methodology could have an adverse affect on the local market as most business is done with unrated counterparties, for which a substantial gap in ratios is applied from the BBB rating to lower or unrated counterparties.

Non-life underwriting risk

Cat risk represents a substantial proportion of non-life underwriting risk for most non-life insurance undertakings. Whilst a number of insurance undertakings noted that the calculation of Cat risk is somewhat subjective, a number of requests for further guidance on defining, calibrating and applying Cat risk scenarios were made.

Operational risk

The nature of operational risk is not well represented by the standard formula, with several participants commenting on the subjectivity inherent in the calculation and that it fails to encourage them to improve operational risk management standards and fails to reward them for progress made to date.

Less than 40% of participants capture historical data on the number of such loss events and only 25% attempt to quantify these events.

9. Practicability of calculations

There was a general concern by many participants that some of the calculations (i.e. specification, spreadsheets and instructions) were difficult to

understand and apply in practice. More guidance seems to be needed, although it is expected that once the methodology is set in place and insurance undertakings gain experience in performing the calculation, they should become more familiar with it over time, therefore reducing the perceived problems.

10. Internal models

There were no participants that already use an internal model, and thus there were no internal model results in QIS4. From the qualitative questionnaire completed by most participants, it was found that 25% of participants intend to use an internal model to calculate their SCR, 30% of participants will not be using an internal model and the rest of the participants have not yet decided whether they will use an internal model. These figures are only indicative of the participants' view, though they indicate that some support for the internal model approach exists.

The main reasons cited for developing a full or partial internal model are to have:

- better risk management practices;
- better capital management;
- lower regulatory capital;
- more transparent decision-making.

11. Other issues

The execution of the QIS 4 calculation represented a challenge to a number of participants. In particular, the following issues were noted:

- The lack of sufficient historical market and individual company data causes problems when it comes to evaluating entity-specific parameters and establishing benchmarks;
- A number of participants also experienced data quality problems and problems with the systems;
- The cost and resource implications of applying the proposed Solvency II calculations, with a particular impact on senior management time and attention;
- Specialisation/competencies in actuarial and statistical fields are limited in the market;
- Many of the proposed simplifications for the calculation of provisions were not seen as particularly helpful for some participants.