

## Irish Industry QIS5 submissions



April 2011

The Central Bank of Ireland has published the results for the Irish Industry of the fifth Quantitative Impact Study conducted across reinsurance and insurance undertakings throughout Europe during 2010. While the report demonstrates strong participation in the study it also highlights some issues arising which will need to be addressed to reduce complexity in the guidance.

### INTRODUCTION

On 14 March 2011 EIOPA issued its report on the fifth Quantitative Impact Study (QIS5). The study was conducted between July and November 2010 to assess the impact and practicability of the potential quantitative requirements under Solvency II. On 1 April 2011 the Central Bank of Ireland published a report on the findings from the contribution of Irish undertakings to the study.

The report identifies the main issues arising for Irish undertakings as:

- Complexity in relation to the calculation of the risk margin, the counterparty default risk module and the non-life catastrophe risk module (method 1) of the SCR.
- The calibration of the non-life underwriting risk module caused a high capital requirement for non-life business.
- The interpretation of contract boundaries caused issues in particular for life companies.

More Irish companies saw a reduction in surplus capital than saw an increase under QIS5 relative to Solvency I. However the vast majority of life companies saw an increase in their surplus capital. 20% of Irish participants failed to fully cover their SCR, while 5% did not meet their MCR.

### PARTICIPATION

The Central Bank of Ireland received 220 completed submissions from individual companies which represents 81% of the companies that will be impacted by Solvency II (which is well in excess of

the 68% participation at European level). The total number of respondents by type is shown below:

Type	Number	% of SII affected
Life undertakings	52	87%
Non-life undertakings	62	74%
Pure reinsurers	53	85%
Captives	53	80%
<b>All respondents</b>	<b>220</b>	<b>81%</b>

In all subsequent analysis the results are split between companies which write predominantly life business and those that write predominantly non-life business. This allocated all captives to non-life business whilst reinsurers were split. Participation by market share was 82.9% for life business and 88.5% for non-life business.

### RESOURCES

The median estimate for the time taken to complete QIS5 submissions was 2 skilled person months.

Regarding preparedness for Solvency II, 33% of undertakings felt there were fully prepared for calculating technical provisions with all data available and no problems with methodologies. 29% were fully prepared for the calculation of the SCR.

85% of undertakings felt they had sufficient resources and strategies in place to be ready for

Solvency II by the end of 2012. 12% felt there were fully prepared now with all resources available and an implementation plan in place.

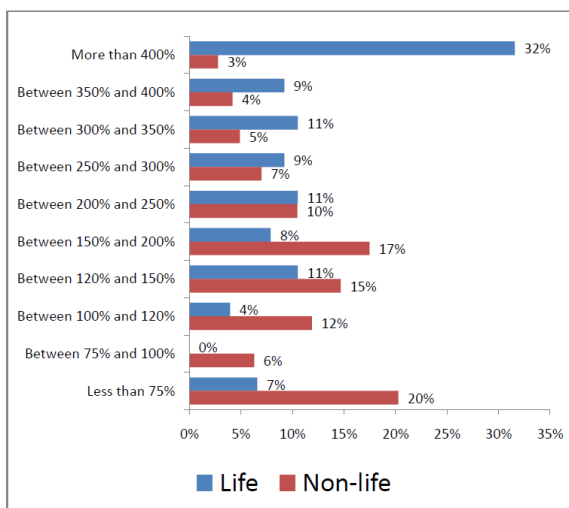
**OVERALL FINANCIAL RESULTS**

42% of companies saw an increase in QIS5 surplus capital compared with Solvency I surplus capital<sup>1</sup>. 75% of life companies saw an increase in surplus capital. Only 24% of non-life companies saw an increase.

43 companies did not have sufficient Own Funds to meet the Solvency Capital Requirement and, of these, 12 would have had to raise more capital to meet the Minimum Capital Requirement.

Many companies did not allow for the loss absorbing capacity of deferred taxes. If they had done so then this could have reduced the SCR.

The distribution of SCR coverage is shown below for life and non-life undertakings. The chart highlights the very different impact of QIS5 on the two types of business.



(Source: Central Bank of Ireland QIS5 report)

**Technical Provisions**

The median ratio of QIS5 technical provisions to Solvency I technical provisions was 95.4% for life business and 93.4% for non-life business.

The median risk margin as a percentage of best estimate liabilities was 1.4% for life business and

<sup>1</sup> Throughout the report Solvency I required capital is based on 150% of RMSM or 100% of MGF.

6.8% for non-life business. This reflects the higher SCR for non-life companies.

The main issues raised in relation to technical provisions were:

- The contract boundaries definition was unclear and inappropriate. Many unit linked contracts had a zero boundary as they were deemed to have unlimited ability to vary contract terms.
- The illiquidity premium implementation was unclear.
- The risk margin calculation was too complex.
- The allocation of overhead expenses and the treatment of expenses for start up companies were unclear.
- Segmentation categories were criticised for being both too broad and too granular.

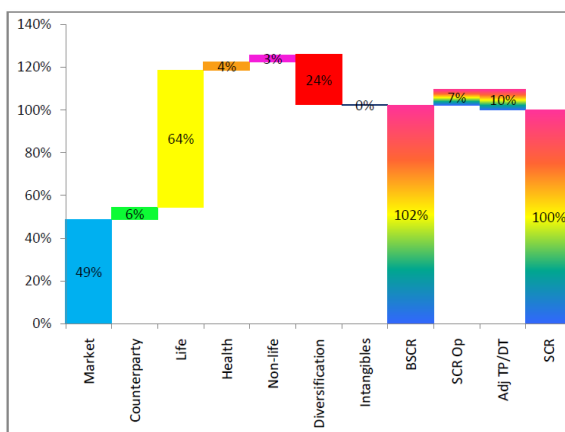
**Own Funds**

95.7% of Own Funds derived from Tier 1 capital, with 1.8% from Tier 2 and 2.5% from Tier 3.

The majority of companies reported a zero Expected Profits In Future Premiums (EPIFP). As a percentage of Own Funds, the highest figure for EPIFP was 90%, with a median of 12% for those companies reporting a non-zero value. Note that the size of EPIFP is directly linked to the definition of contract boundaries, noting in particular that many contracts had a zero boundary.

**Solvency Capital Requirement (SCR)**

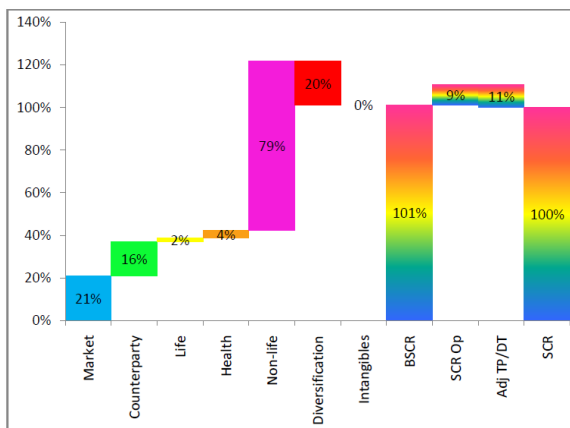
The composition of the SCR is shown in the table below for life undertakings.



(Source: Central Bank of Ireland QIS5 report)

Life underwriting risk and market risk are the largest component of BSCR for life companies.

The composition of the SCR is shown in the table below for non-life undertakings.

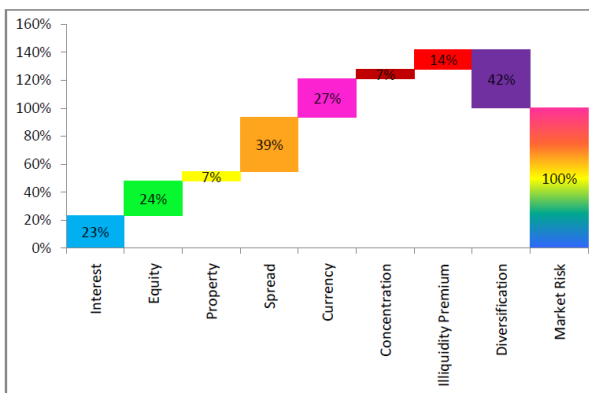


(Source: Central Bank of Ireland QIS5 report)

For non-life companies the BSCR is dominated by non-life underwriting risk.

The median operational risk as a percentage of the BSCR is 11.7% for life business and 5.7% for non-life business.

The components of the market risk module of the SCR are shown below for all companies:



(Source: Central Bank of Ireland QIS5 report)

Spread risk is the largest component of the market risk module. Currency, equity and interest rate risk are also significant components.

For the life underwriting risk module, mortality risk is the largest component. Lapse and catastrophe risk are also significant.

The main comments made in relation to the SCR were:

- There were problems looking through to underlying assets for unit funds for the market risk module. No allowance for dynamic hedging overstated market risk.
- The counterparty default risk module calculation is too complex and too penal.
- Many companies felt that the longevity risk module should be an improving mortality trend rather than a once off improvement.
- Assessing the lapse risk at policy level was difficult and not intuitive.
- The Non-Life Underwriting Risk module received most comments. These were in relation to the complexity of the catastrophe sub-module and the high results produced by this and the premium and reserve sub module.

### Loss Absorbing Capacity

In calculating the loss absorbing capacity of technical provisions and deferred taxes very few companies used the equivalent scenario. This is despite the fact that the equivalent scenario was only introduced for QIS5 after comments from industry that the modular approach used in QIS4 did not give an accurate view.

### Minimum Capital Requirement (MCR)

Whilst there was a corridor for the MCR of 25% to 45% of SCR, the absolute floor for the MCR did push some companies above this corridor.

For some companies the calculated SCR was less than the absolute floor for the MCR.

### INTERNAL MODELS

In general, the internal model results reported reduced the SCR significantly (by up to 50%).

Of the Irish companies which gave internal model results the majority used a group model. The majority of companies already used internal models for a variety of purposes. The majority of models required further refinement to meet Solvency II requirements.

External models were used as part of the model particularly for catastrophe risk or for economic issues. External data was relied on for all models,

mainly for economic data. Expert judgement was widely used.

Some of the items included in the internal model that were not in the standard formula were:

- An interest rate volatility risk and an equity volatility risk;
- Concentration risk was allowed for implicitly through spread risk and explicitly by managing the risk;
- Intangible asset risk and claims revision risk were not explicitly identified, instead the risks are covered by the underlying risk drivers;
- Full tax benefits were credited in the SCR;
- A different approach was taken to aggregating risks;
- Different correlations were used;
- More risk factors were included;
- Expense and lapse risk were grouped together as business risk;
- The credit module allowed for changes in corporate bond spreads and the illiquidity premium.

## SUMMARY

In general, the increased participation for QIS5 relative to QIS4 demonstrates that the industry is successfully engaging on the development of Solvency II. This should help create a final Solvency II solution that is aligned with companies' needs and expectations.

QIS5 is expected to be the last in the series of impact studies. Any further improvements to the Solvency II regime will be through the finalisation of the Level 2 Implementing Measures and the subsequent consultation on the Level 3 guidance. Companies are encouraged to engage fully in further consultations to ensure that the final Solvency II guidance provides a solution that is both sound and workable.

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## CONTACT

If you have any questions or comments on this briefing paper or any other aspect of Solvency II, please contact any of the consultants below or speak to your usual Milliman consultant.

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