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# Testing the standard formula

## What QIS5 tells us

Testing the standard formula has been a big focus because it will be the main Europe-wide method for calculating insurers' capital requirement for Solvency II.

UK insurers will need to know how the standard formula affects their solvency capital requirement (SCR) even if they plan to use an internal model, as the standard formula SCR may be used by the FSA as a benchmark against which to compare the internal model SCR.

Almost 70% of all European insurers and reinsurers that will be covered by Solvency II took part in the QIS5 quantitative impact study testing the standard formula. In the UK, 267 firms took part.

The standard formula tends to produce a higher capital requirement for insurers with longer-tail, more complex risks, whereas for a relatively simple motor book, for example, it will be less.

Partner at Deloitte, Rick Lester, said: "The problem with the standard formula is that it's designed to fit a standard firm, which obviously doesn't necessarily reflect the insurer's profile.

"The standard formula might fit well for operational risk but because of an insurer's portfolio, it might end up being penalised. In this case, the insurer would typically adopt an internal model – an approach to calculating capital requirements that fits their business."

As part of QIS5, some firms were able to provide their internal model SCR as well as their standard formula SCR. For UK non-life firms, capital requirements under the internal model turned out to be 78% of what they would be under the standard formula.

Lester said Solvency II could have a knock-on effect on what business insurers write, depending on the capital required to be held against certain lines of business.

## QIS5 UK results

**Ranking of business lines by amount of capital required under QIS5**

**MAXIMUM RISK**

**Longer-tail, more complex risks attract a higher capital requirement under the standard formula**

- **Credit suretyship**
- Non-proportional re – property
- Non-proportional re – casualty
- Marine, aviation, transport (MAT)
- Non-proportional re – MAT
- Third-party liability
- Miscellaneous
- Fire and other property
- Motor vehicle liability
- Motor other classes
- Legal expenses
- Assistance

**MINIMUM RISK**

**Historically less risky lines require less capital under the standard formula**

### Results for non-life firms

**1. Change in surplus compared to the old Solvency I regime**

**-39%**

(median)
Large, non-life firms tended to see a decrease in surplus, because the one-size-fits-all standard model did not properly reflect their portfolios.

**2. Solvency ratio**

**161%**

(median)
Non-life firms had a lower solvency ratio than life firms; ratios below 100% mean that a firm has insufficient resources to meet the SCR.

**3. Proportion of firms not meeting the SCR under QIS5**

**22%**

**This is compared to 16% for life firms**

**4. Ratio of technical provisions under QIS5 compared to Solvency I**

**89%**

Non-life firms tended to lower technical provisions under QIS5 than under Solvency I.

Source: FSA

## QIS5 participation among UK firms was very high

**Breakdown of the UK firms that took part**

| | Life | Non-life | Total |
|---|---|---|---|
| Small | 42 | 60 | 102 |
| Medium | 41 | 74 | 115 |
| Large | 33 | 17 | 50 |
| **Total** | **116** | **151** | **267** |

**Firms' own view of reliability of their results**

| | Small | Medium | Large |
|---|---|---|---|
| Technical provisions | 3 | 3 | 3 |
| Best estimate | 3 | 3 | 3 |
| Risk margin | 2 | 3 | 3 |
| Valuation of assets and liabilities other than technical provisions | 3 | 3 | 3 |
| Solvency capital requirement standard formula | 2 | 3 | 3 |

(1=poor, 2=fair, 3=good, 4=excellent)

**5. Internal model SCR as a percentage of standard formula SCR**

# 78%

**99% for life firms**
Internal models noticeably reduced SCR for non-life firms.

## What the ratings agencies say

### AM Best
Single EU regulatory regime will strengthen confidence.
**Transitional periods will reduce market disruption, limiting negative impacts on ratings.**
Lack of global regulatory equivalence may result in revised strategies for some groups, and could therefore indirectly impact ratings.

### Fitch
Solvency II will be broadly ratings-neutral.
**Some non-life insurers may have to recapitalise.**
De-risking by reducing exposure to equities has helped insurers.

### Standard & Poor's
Balance sheets are more sensitive to market conditions under Solvency II than Solvency I.

### Moody's
Majority of European insurers will not need to raise capital under Solvency II since only 15% of insurers failed to cover SCR under QIS5.
**A majority of 65% of insurers participating in QIS5 reported SCR ratios above 150%.**
Chances of a relatively smooth crossover to Solvency II have improved since Eiopa supported transitional measures.

## Stress test

Eiopa tested the ability of 221 UK and European insurance and reinsurance groups

**10% failed**
MCR under the **adverse scenario**
Solvency deficit €4.4bn

**8% failed**
MCR under the **inflation scenario**
Solvency deficit €2.5bn

**€425bn**
aggregate solvency surplus before the stress was applied

**-€33bn**
when the sovereign bond shock is applied

**-€150bn**
when the adverse scenario is applied

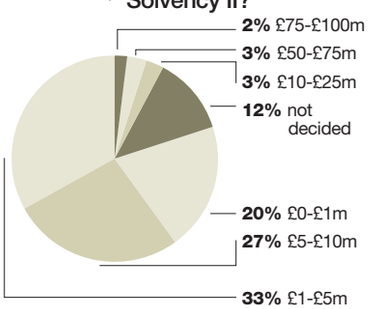
**-€58bn**
when the inflation scenario is applied

## Survey of insurers

### Costs and concerns

**Top three areas of concern:**
1. Sponsorship and engagement
2. Clarification and guidance from regulators
3. Interdependencies with other change programmes

How much do you expect to spend on Solvency II?




### Possible repercussions

**Difference between life and non-life concerning the impact on product**
**Life insurers:** 20% expect to change their product mix and redesign products, and 30% will launch new products
**Non-life insurers:** 10% will change product mix and redesign, and 10% see an opportunity to launch new products
**Percentage of companies that will re-price**
**All respondents:** 20%
Companies of less than £100m
**NWP:** 35%
Companies of more than £5bn
**NWP:** 75%
**Percentage of companies that will restructure or relocate**
**Restructure:** 47%
**Relocate:** 8%

Taken from interviews with 60 insurers with UK operations
Source: Deloitte

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# Lloyd's urges no delay on SII

Lloyd's wants the FSA to stick to its existing SII timetable, and not delay it by a year as has been suggested. Lloyd's effort to win internal model approval has gained a momentum it hopes not to lose.

The company's £3.1bn Central Fund, which collectively guarantees claims payouts for syndicate policyholders, means that Lloyd's will be treated as a single entity by the FSA for Solvency II. For Lloyd's to gain internal model approval, all syndicates must produce their own internal model and get it approved.

There is a deadline of 31 October 2011 for managing agents to submit their solvency capital requirement (SCR) to Lloyd's. Those that fail to do so could face curtailments to their business plan, and/or capital loading.

The tough sanctions are a way to focus agents' minds on the project. Internal model approval is seen as vital by Lloyd's because the implications of the standard formula for its SCR are bad.

The differing risk profiles of each syndicate will produce different SCR outputs, all of which will then feed into the Lloyd's overall model. Once Lloyd's has reviewed the models it will determine the risk to the Central Fund, and develop its own Central Fund model. The Central Fund currently takes the syndicates' capital requirements under ICAs and uplifts them by 35%. This is for legal purposes, to maintain its economic health, and to keep its top credit rating.

Last week, ratings agency AM Best reaffirmed its financial strength rating of 'A' and issuer credit rating of 'A+' for Lloyd's, saying: "A smooth transition to the Solvency II regulatory regime in 2013, including the approval of a Solvency II compliant internal capital model, is crucial if Lloyd's is to retain its unique capital efficiencies."

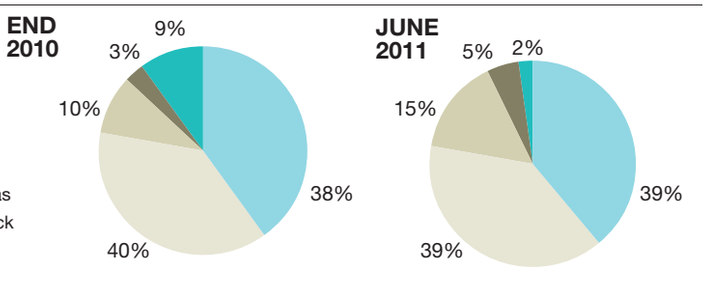
## Lloyd's internal model project

**Lloyd's internal model**

There are 54 managing agents running 80 syndicates. All of them need to gain internal model approval for Lloyd's to get an overall internal model approved.

### Preparedness is slowly improving

By agent




Source: Lloyd's

### Why it's so important

Failure to gain internal model approval would mean that Lloyd's has to calculate its SCR using the standard formula

**x 2.5**

Multiple by which existing capital requirement will change under the standard formula

**£30bn**

Estimated capital Lloyd's would need under the standard formula

### Areas of concern for Lloyd's in QIS5

#### Cat risk

Under QIS5, the capital charge for catastrophe risk is equal to the sum of all net losses for the largest 25 catastrophic events in the last 10 years. This means that the risk for a 12-month period results in a number the same as if the 25 largest catastrophic events had all happened in one year.

An Eiopa task force, with input from Lloyd's, has put to the European Commission a calibration of standard formula cat risk to try to make this figure more appropriate. The EC is also believed to be looking at its own proposal.

Either way, a change to the standard model should be firmed up by end of September.

#### Currency

The second biggest driver of Lloyd's SCR number was the rules on currency. Under QIS5, a capital charge is applied if a company is holding a surplus of, say, dollar assets, compared to its dollar liabilities.

However, many Lloyd's insurers typically match their currency assets with where their liabilities are, as part of sensible risk management.

If a major US cat event happens, they are not then exposed to currency fluctuations. QIS5 was seen as penalising companies for sensible risk management.

CEA has proposed changes to this, and is awaiting a response.