

Own Solvency Capital Assessment “OSCA”

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15 July 2008

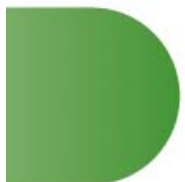


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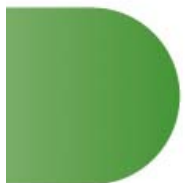
Agenda

- **Introduction**
- **OSCA Basics**
- **Comparison with ICA and Solvency II**
- **Practical Issues**
- **Assets and liability issues**
- **Aggregation of risks - example**
- **Conclusions**
- **Next steps**



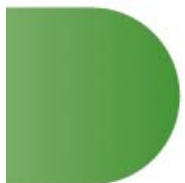
Introduction

- **Anyone who lives within their means suffers from a lack of imagination**
- **Solvency is entirely a matter of temperament and not of income**
- **If we don't succeed, we run the risk of failure**



General requirements

- **Minimum solvency margin per formula in Schedule 2 of the Law (MSCR)**
- **Own Solvency Capital Assessment (OSCA)**
- **OSCA must be submitted with**
 - All new applications on or after 30 September 2008
 - All annual returns for year ends on or after 30 September 2008
 - Notification of any material business plan change with an effect on solvency



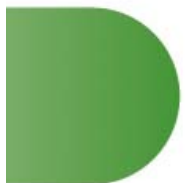
Methodology

- **Not prescriptive**
 - But up to 22 expected items
 - Not exhaustive (but possibly exhausting!)
- **Existing internal models likely to be accepted**
 - Few captives likely to have such models
 - Deterministic approach considering different possible scenarios likely approach
- **Need to consider any risk that might impact on the solvency of the company**



Supervisory intervention

- **GFSC may require additional information**
- **If rationale considered inadequate then may request that OSCA reconsidered and resubmitted**
- **Ultimately GFSC may specify required level of capital**
- **Breach of MSCR - immediate action**
- **Breach of OSCA – recovery plan and possible constraints (eg on dividends or loans)**



ICA – UK Standard

- A firm must at all times maintain overall financial resources, including capital resources and liquidity resources, which are adequate, both as to amount and quality, to ensure that there is no significant risk that its liabilities cannot be met as they fall due
- Consistent with a 99.5% confidence level over a one year timeframe, or if appropriate, an equivalent lower confidence level over a longer timeframe
- No standard model
- Relative to realistic assessment of assets and liabilities



Solvency II

- **Forthcoming EU standard**
- **Choice of standard model or own approach**
- **Standard model calibrated to 99.5% confidence level over a one year timeframe**
- **Relative to realistic assessment of assets and liabilities**
- **Own model has to have same calibration**
- **Own model will lead to Own Risk and Solvency Assessment (ORSA)**
- **Will have to pass a use test and be approved by the supervisor**



Dickens

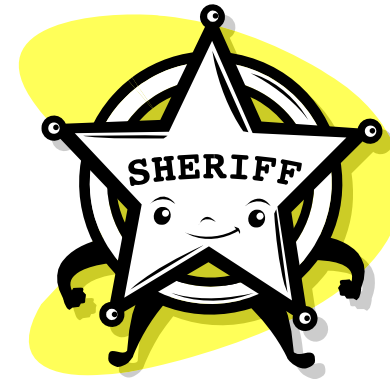


Key differences for Guernsey

- **No specified confidence level that will be sufficient to meet requirement (99.5% over one year for ICA and Solvency II)**
- **No standard model option (as per Solvency II)**
- **Relatively limited guidance**
- **Is a realistic assessment of assets and liabilities needed?**



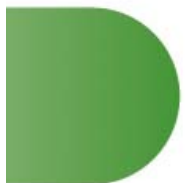
Supervisory intervention



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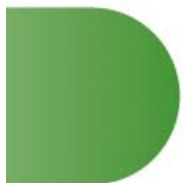
Executive Summary

- **Amount of OSCA**
- **Indication of most significant risks**
- **Confirmation of Board consideration and approval**
- **What will a Board need to approve an OSCA submission?**
 - Result
 - Data
 - Rationale
 - Comfort that all issues are covered



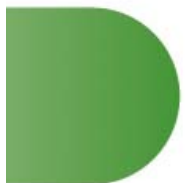
Data

- **The data that has been used should be listed**
- **Comments on the availability and reliability of data**
- **Claims data**
 - Current claims or development data
 - Quality of reporting
- **Operational risks**
 - Should managers record and report operational problems in some way?
 - And if not how do Boards assess operational risk?
 - Could consider potential for errors
- **What data do you have on other risks?**
 - Regulatory risks
 - Financial strength of parent



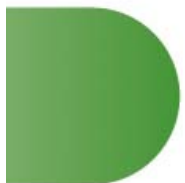
Assumptions

- **Inflation, interest rates, claims inflation**
- **What assumptions have been made?**
- **How are they to be justified?**
- **If no interest rate assumption has been made then there is an implicit margin which will increase capital requirement**
- **Sensitivity testing**
 - How many assumptions to be tested?
 - How many variations?



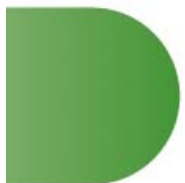
Claims Uncertainty

- **Reference to actuarial assessment**
 - Comments on variability a standard part of our reports
- **Is the variability quoted consistent with analysis of other risks for OSCA purposes?**
- **Underwriting risk**
 - Risk of premium inadequacy
- **Allowance for volatility of future claims**
 - What does this mean?

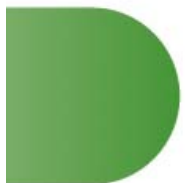


Long Term Business

- **Mortality risk**
- **Longevity risk**
- **Allowance for future expenses**



Asset and liability issues



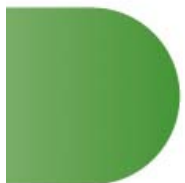
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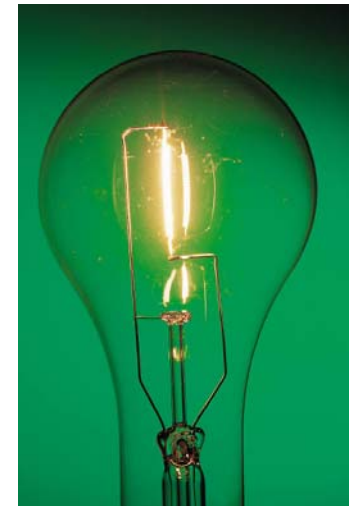
Appendix A – investment-related

- Reinsurer
- Liquidity
- Mismatch between assets & liabilities
- Foreign exchange
- Investment (performance risk)
- Counterparty credit
- Regulatory
- Operational
- Unapproved assets
- Parent



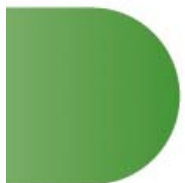
Licensed Insurers' Corp Gov Code

- **Some useful illumination**
- **Investment risks identified**
 - Credit: default; downgrade; concentration
 - Market: interest; currency; equity
 - Liquidity
 - Custody: inadequate controls
 - Mismatch/resilience
 - Derivatives



Appendix A - take #2

- Reinsurer
- Liquidity
- Mismatch between assets & liabilities
- Foreign exchange
- Investment (performance risk)
- Counterparty credit
- Regulatory
- Operational
- Unapproved assets
- Parent



Light blue risks

- **Asset-related**
- **The risk of downgrade and default**
 - Reinsurer
 - Counterparty credit
 - Parent
- **Method of assessment**
 - S&P, Moody's rating?
 - No rating available?
 - Seniority of debt?
- **Quantification of capital requirement**
 - A- reinsurer versus AAA reinsurer?



Light blue, two



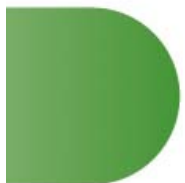
- **Investment (performance risk)**
 - Material underperformance – mitigate with evidence of regular reviews vs benchmark
 - Eg exposure to mortgage-backed securities in cash funds (and this is not unusual)
- **Unapproved assets**
 - Unpaid share capital; letters of credit; loans to parent; subordinated loans
 - Risk of these being illiquid when needed



Dark blue risks

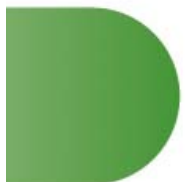


- **Mainly mismatch risks**
- **Liquidity**
 - Not there when it's needed
 - Eg economic event puts pressure on claims and availability of credit
 - Non-cash investment
- **Mismatch between assets & liabilities**
 - Inflationary risk if assets are in cash
- **Foreign exchange**
 - Asset exposure out of step with claims' currency
- **Resilience testing to quantify these risks**



Green risks

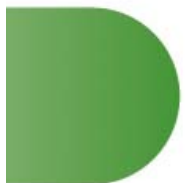
- **Financial impact of control problems**
- **Regulatory – risk's or frontier's location**
 - Disallowal of an investment
- **Operational**
 - Disputed custody
 - Loss of interest
 - Mispricing securities, derivatives
- **More difficult to quantify**
 - Good reason for conservatism elsewhere



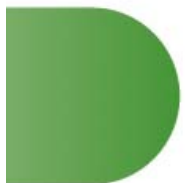
Asset/liability summary



- **Assets**
 - Analysis
 - Objective technical assessment
- **Mismatch**
 - Suitable resilience testing
- **Controls**
 - Record
 - Quantify if possible
 - Otherwise conservatism elsewhere



Summing up

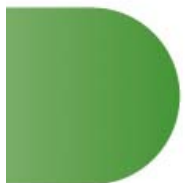


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Aggregation of risks - example

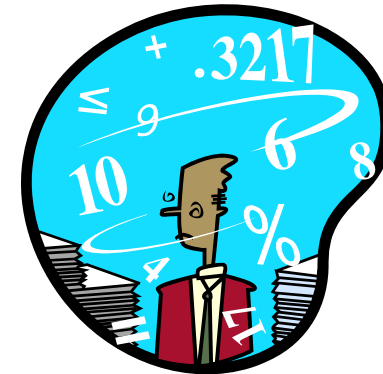
- **Assume that stress tests have been done with the following results**
 - Market risk: £0.5M
 - Claims risk: £2M
 - Operational risk: £1M
 - Credit risk: £1M
- **What capital is needed?**



Correlations

- Risks may not be independent
- Can use a correlation matrix

$$\sqrt{\sum_{i,j} corr(i, j) * capital(i) * capital(j)}$$



- Solvency II likely to adopt this approach for standard model
- Difficulty is to populate the correlation matrix
- Answer likely to be between £2.5M and £4.5M but you need a justification for the approach and correlation assumptions used
- Or could you weaken the stress tests?

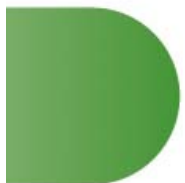
Conclusions

- **OSCA is coming**
- **Will require careful initial thought to produce a rationale that Boards (and the GFSC) can approve**
- **Actuarial help may be useful in setting reserve ranges**
- **Actuarial help may also be useful in other areas**
- **GFSC approach will be crucial in absence of more detailed guidance**

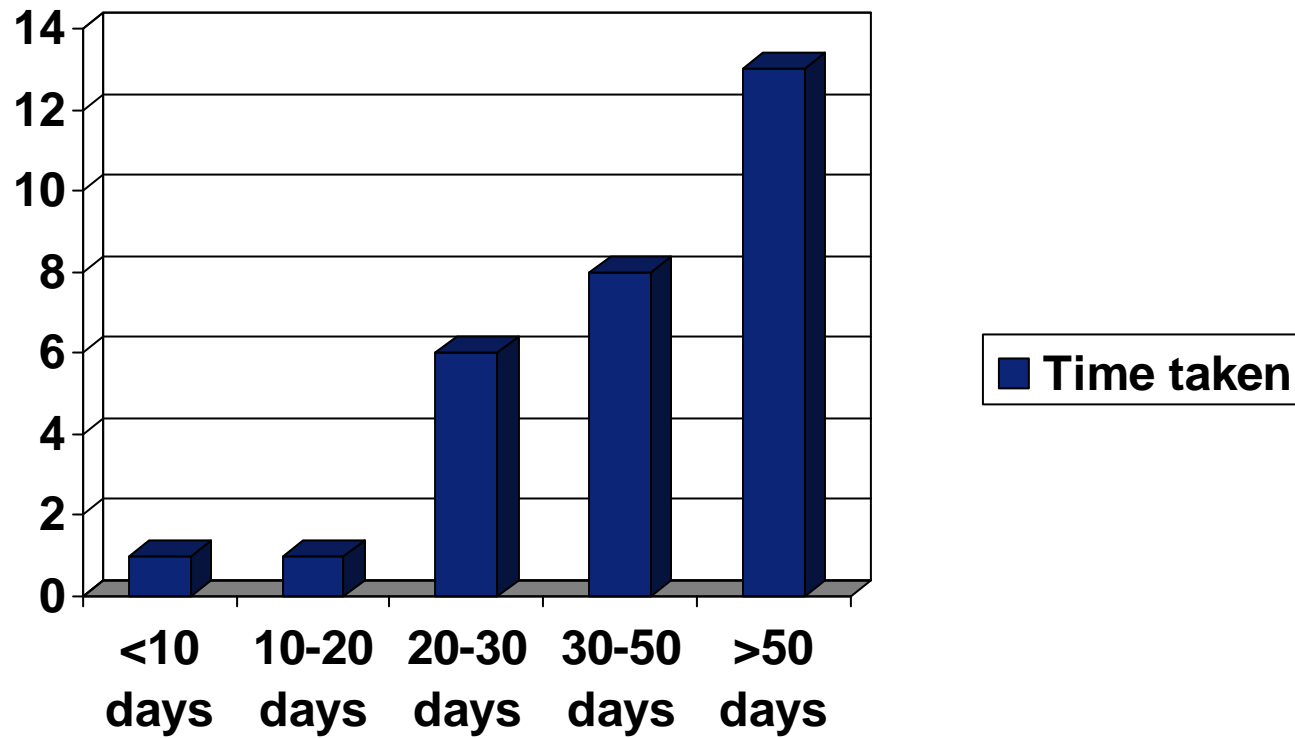


Next steps

- **Try computing an OSCA for a sample client...**
- **...and writing the justification!**
- **If well capitalised may be simple**
- **If capital is limited or the risks are complex then more thought may be needed**
- **Don't leave it too late!**



Time taken to complete an ICA



Will your OSCA be?



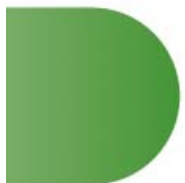
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Final thoughts

- **Anyone who lives within their means suffers from a lack of imagination**
 - Oscar Wilde
- **Solvency is entirely a matter of temperament and not of income**
 - Logan Smith
- **If we don't succeed, we run the risk of failure**
 - Dan Quayle



Questions



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Questions



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