

**OFFSHORE GROUP OF INSURANCE SUPERVISORS**

# **OGIS**

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**Guidelines On The Supervision of Insurance Companies  
Using An Exposure-Based Approach To Capital**

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## **1. Introduction**

The purpose of this paper is to provide guidance to the Members and Observers of the Offshore Group of Insurance Supervisors on how to adopt and implement an exposure-based approach to capital for regulatory purposes.

Many jurisdictions have guidelines regarding the minimum level of capital required to support underwriting. Prudential supervision requires sufficient capital to support underwriting. In a number of jurisdictions the Insurance Supervisor is only concerned that an adequate solvency margin exists. This solvency margin is the amount by which the assets of an insurer must exceed its liabilities. Frequently the margin of solvency is based on a percentage of gross or net premium income, which may differ depending on whether the business is general or long term.

## **2. Weakness of the premium based solvency margin as a supervisory tool**

Although the premium based margin of solvency is routinely used by Insurance Supervisors, there are a number of weaknesses inherent with such an approach.

### 1) Run – off.

An insurance company in run off and therefore not writing new business will have a net premium income of nil, and therefore no requirement for a margin of solvency (although it is recognised that in such cases some OGIS jurisdictions may still have a minimum requirement). The fact that an insurance company is in run off does not absolve the requirement for a margin of solvency, as claims may develop many years after the premium is written e.g. long tail business.

### 2) Premium as a true reflection of risk

Using gross or net premium suggests that the level of premium is an adequate measure of risk, which might not necessarily be the case. An insurance company could immediately reduce its solvency margin requirement by writing the same risks, but at a reduced premium. In such an instance, the solvency margin would reduce although the probability of a loss would not have changed. The insurance company would have less premium to meet the same probability of losses.

### 3) Calculation of reserves

In some jurisdictions there is the ability to gross up approved assets if the approved assets are less than 75% of the total assets. Therefore, depending on whether the reserves are shown net or gross (in which case there will be a corresponding asset, being reinsurance recoveries) on the balance sheet can determine whether the insurance company meets its solvency margin.

### 4) Asset Valuation

Should all assets be treated equally for solvency purposes? There is an argument that some assets are not as secure as others, and therefore should not be permitted for solvency calculations.

Attempts have been made to reduce the weaknesses of the traditional solvency margin. For example many jurisdictions have approved asset regulations such that certain assets (e.g. goodwill or loans to connected parties) are not permitted for solvency margin purposes. To overcome the weaknesses of the solvency margin for insurance companies in run-off, some jurisdictions have a claims based reserve, such that the solvency margin can be based on a percentage of the reserves.

Due to the problems with the solvency margin, many jurisdictions use a risk-based (including an exposure based approach) to capital. The risk-based approach will be covered in a future paper. This paper only deals with the exposure-based component.

### **3. Basics of the exposure-based approach to capital**

It is difficult for a supervisor to be prescriptive with respect to the level of capital required to support underwriting.

The exposure-based approach to capital involves the Insurance Supervisor considering the maximum net (i.e. after reinsurance) exposure generated by all the classes of business being written and ascertaining whether there is sufficient net premium (after reinsurance and commission) and capital in the insurance company to cover these risks.

If the net premium and capital is insufficient to cover the aggregate net exposure, then a “risk gap” exists, such that in the event of maximum losses (and despite reinsurance) the insurance company has insufficient resources to meet its obligations. In such a situation there are obviously serious implications for the reputation of the offshore jurisdiction.

### **4. Practical considerations of using an exposure-based approach to capital.**

#### 1) Classes of business and diversity of exposures

The Insurance Supervisor must have a detailed understanding of the business being written. If an insurance company is writing a diverse book of business (e.g. property damage, employers liability, D&O, E&O) then the probability of a maximum loss on each class in the same year is reduced. Consequently, the existence of a risk gap may be acceptable.

If the captive is writing a single class of business, then the existence of a risk gap needs more careful investigation.

If the exposures are in a single territory, there is a greater likelihood of catastrophe exposures.

#### 2) Reinsurance

The Insurance Supervisor must understand how the reinsurance programme reduces or eliminates the insurance company’s exposure. Non-proportional reinsurance treaties limit total exposure more effectively than proportional reinsurance. Heavy reliance on poorly rated reinsurers (especially for long tailed business) should be carefully considered when looking at net exposure. The Insurance Supervisor should consider obtaining copies of the original reinsurance contracts.

- 3) Definition of maximum net exposures  
There are various market definitions of exposure, and the Insurance Supervisor must ensure they understand the one being used by the insurance company. For example with property damage, some definitions of estimated maximum loss assume that the fire is reported, loss prevention systems work (e.g. sprinklers) and the fire brigade arrive promptly. Another insurance company may describe its estimated maximum loss as a situation when none of the above occurs.
- 4) Loss history.  
The Insurance Supervisor should consider the expected net losses when assessing an adequate level of capital to support underwriting. For example, an insurance company may write high layers, with are unlikely to ever be exposed. To request that an insurance company maintains sufficient capital to cover such losses may be unrealistic. However, should the one in ten year catastrophe occur, the supervisor should be certain that the losses can be met e.g. through contingent funding.
- 5) Policyholder's deductible.  
The level of deductible will be an important factor in the loss history, but is worthy of mention in its own right. A large deductible carried by the policyholder, could reasonably be expected to reduce the frequency of claims upon the insurance company (as compared to cover from the ground up) and thus the prudential supervisor should consider when reviewing capital adequacy.
- 6) Fronting Arrangements  
The involvement of quality fronting insurance companies (for captive programmes) should be an additional comfort to the Insurance Supervisor when reviewing capital. The front company will nearly always take security in some form (e.g. letters of credit, retained premiums). In some cases the security may be from the captive parent group. Notwithstanding this, the Insurance Supervisor should be careful not to admit insurers with inadequate capital.
- 7) Acceptable capital for funding risks  
The Insurance Supervisor needs to give careful consideration to what is acceptable capital for an insurance company to use, to fund its exposures. Typically shareholders funds are used, including issued but uncalled capital for the more remote layers (this is subject to local legislation regarding compulsion to pay).
- 8) Experience of the insurance company.  
In the early years of an insurance programme, the Insurance Supervisor must look carefully at capital adequacy, especially in light of the lack of historical claims information. As the insurance company becomes more familiar with the business, the Insurance Supervisor may relax the capital requirements. Obviously consideration should also be given to the quality of the board, compliance with corporate governance principles and in the case of captive insurance companies, the quality of the insurance manager

9) Reputational consequences of a risk gap

The Insurance Supervisor will need to consider the implications of a risk gap. For the insurance company that issues policies to members of the public, or to a company with third party claims (liability or casualty), the failure to have sufficient capital to support a maximum loss scenario is a clear reputational risk to the Insurance Supervisor and his/her domicile. In the case of a captive writing solely its parent property risks, the fact that the captive may have insufficient capital to support maximum losses means the reputational risk is not as great, but in this case the Insurance Supervisor should ensure that contingent funding is available.

## **5. Role of a spreadsheet business plan**

The use of a spreadsheet business plan (copy attached) to assess capital adequacy is strongly recommended. Such a business plan should be provided by every licensed insurer and should show the following:

- Business written
  - Classes and origin of business, fronting insurers, level of deductibles.
- Net premium income
  - Gross premium less commissions and reinsurance (including details and ratings of reinsurers).
- Maximum net exposure
  - Maximum gross exposure less reinsurance
- Expected net losses
  - Based on loss history (including historical loss ratio).
- Residual Exposure
  - Maximum net exposure less net premium income.
  - Indicates the difference between the maximum net exposure and the net premium from accepting a risk
- Risk Gap
  - Residual exposure less capital.
  - Indicates whether net premium and capital (i.e. shareholders funds) is sufficient to cover maximum net exposures.

## **6. Monitoring**

An exposure-based approach to capital does not only apply to the initial licensing of new insurance companies. Although it is essential that Insurance Supervisors are comfortable with the ability of newly licensed insurers to meet their maximum exposures out of their capital, it is also important for ongoing operations. Consequently any changes in the business written by a licensed insurer should be notified to the Insurance Supervisor, and examined to see whether it creates a risk gap. If such a gap does exist, the question of how the risk gap could be financed (if necessary) should be raised.

## **7. Summary**

As this guidance paper stated earlier, it is difficult to be prescriptive about the necessary level of capital to support underwriting. Prudential supervision in the offshore insurance market requires flexibility from the insurer, which can only arise if the Insurance Supervisor understands the market, the insurance companies it supervises, and the risks they write. Taking an exposure-based approach to capital requirements can be a useful supervisory tool in reducing insurance company failure.

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