Financial Regulator
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Non-Life Finite Reinsurance

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Consultation Paper | CP28

Contents

1 Introduction

1.1 Scope

On the 15th of July 2006, Statutory Instrument 380 of 2006 (“S.I. 380”) transposed into Irish law Council Directive 2005/68/EC (“Reinsurance Directive”). The Irish Financial Services Regulatory Authority (“Financial Regulator”) is issuing this paper to outline and explain the regulatory requirements that will apply to those reinsurance undertakings carrying on non-life reinsurance business that classify their business, or a material part[1] thereof, as finite reinsurance (hereinafter referred to as “non-life finite reinsurance”).

1.2 Implementation

The requirements in this paper must be implemented in full as soon as practicable but no later than the 28th of September 2007.

In order to monitor the degree of compliance amongst reinsurance undertakings carrying on non-life finite reinsurance with the regulations of S.I. 380 and with the requirements herein, all non-life reinsurance undertakings carrying on non-life finite reinsurance must confirm their compliance through a submission (“2007 Non-Life Finite Submission”), to be lodged with the Financial Regulator by close of business on the 28th of September 2007.

The 2007 Non-Life Finite Submission must be approved by resolution of the Board of Directors of the non-life reinsurance undertaking and must include, at a minimum:

1) Detailed calculations under Chapter 4: Prudential Rules, to include:

[1] “Material” in this context must be determined by the reinsurance undertaking and approved by resolution of the Board of Directors. The Financial Regulator would direct the Board of Directors to Regulation 62 (1) (b) of S.I. 380 when determining material. Any finite reinsurance deemed not to be a material part of the business of the reinsurance undertaking remains subject to Regulation 62 of S.I. 380.

i) A description of the methodology and assumptions used in any of the calculations.

ii) The disclosures required under section 4.3 (and detailed in section 6.2) of this paper.

iii) The information required under section 4.5 of this paper, if the non-life reinsurance undertaking wishes to avail of that option.

2) Copies of the latest policies and procedures under Chapter 5: Systems and Controls.
3) Details of any material issues that have arisen in the preparation of the submission and any consequent decisions made by the Board of Directors

The 2007 Non-Life Finite Submission may be submitted by registered post or by email to: **reinsurance@financialregulator.ie**

1.3 Legal Basis

Chapter 3 refers to contract documentation for non-life finite reinsurance required under Regulation 62 of S.I. 380.

Chapter 4 contains prudential rules pursuant to Regulation 61(1) of S.I. 380 for the available solvency margin, the required solvency margin and the guarantee fund that an authorised reinsurance undertaking established in the State is required to establish and maintain in respect of its non-life finite reinsurance activities.

Chapter 5 states the opinion of the Financial Regulator for the purposes of Regulation 20 of S.I. 380 as to its subject matter. Accordingly, Chapter 5 outlines the systems and controls that, in the opinion of the Financial Regulator, can be considered to be sound and adequate for the purposes of Regulation 20 with respect to the matters discussed in Chapter 5.

Chapter 6 requires authorised reinsurance undertakings carrying on non-life finite reinsurance established in the State to lodge certain returns with the Financial Regulator, pursuant to Regulation 21 of S.I. 380.

Any opinion in this paper may be amended or supplemented by the Financial Regulator from time to time.

Failure by such a reinsurance undertaking carrying on non-life finite reinsurance to comply with the rules, standards and requirements in this paper may be the subject of an administrative sanction under Part IIIC of the Central Bank Act 1942 and shall, except where there is a reasonable excuse, constitute an offence in accordance with S.I. 380.

2 Finite Reinsurance

2.1 Introduction

The Financial Regulator recognises that finite reinsurance has an important role to play in the reinsurance sector. The Financial Regulator does not wish to impose restrictions that will become a barrier to entry for reinsurance undertakings carrying on this business nor place any restrictions on reinsurance undertakings carrying on business commonly known as traditional reinsurance within the broad reinsurance marketplace. As a result, the Financial Regulator needs to ensure that this sector is appropriately regulated and this paper outlines the regulatory regime for reinsurance undertakings carrying on non-life finite reinsurance. Reinsurance undertakings that experience difficulties in interpreting specific elements of this paper should contact the Financial Regulator directly.

2.2 Definition

S.I. 380 defines finite reinsurance as reinsurance under which the explicit maximum loss potential, expressed as the maximum economic risk transferred, arising both from a significant underwriting risk and timing risk transfer, exceeds the premium over the lifetime of the contract by a limited but significant amount, together with at least one of the following two features:

i) explicit and material consideration of the time value of money,

ii) contractual provisions to moderate the balance of economic experience between the parties over time to achieve the target risk transfer.

For the purposes of this definition:

"Underwriting Risk" is the possibility that losses and expenses recoverable by the cession undertaking from the reinsurance undertaking will exceed the consideration received by the reinsurance undertaking, thus resulting in an underwriting loss to the reinsurance undertaking.

And

"Timing Risk" is the risk arising from uncertainties about the timing of the receipt and payments of net cash flows from premiums, commissions, claims, and claim settlement expenses paid under a reinsurance contract. The reinsurance undertaking could have a reduction in the expected investment income as a result of accelerated loss payments.

2.3 Interpretation

Finite reinsurance is a broad term used to describe an entire spectrum of limited risk transfer reinsurance contracts, from relatively simple transactions to sophisticated individually designed structures.

2.3.1 Risk Transfer

In the Financial Regulator's opinion, therefore, risk transfer can be taken to mean that the reinsurance undertaking must be able to incur a net present value loss of a significant amount under the contract[2] whereby such an amount is:

1) material relative to the potential maximum net present value profit of the reinsurance contract, and
2) such an amount must arise from at least one future uncertain event that is possible and of commercial substance to the business of the cession undertaking.

[2] All references to contract herein include any related contract, as defined in S.I. 380.

On this analysis, the net present value loss is the value of a loss under the contract as calculated by discounting the expected cash flows to and from the reinsurance undertaking at an appropriate interest or discount rate. Similarly, the net present value profit is the value of a profit under the contract as calculated by discounting the expected cash flows to and from the reinsurance undertaking at an appropriate interest or discount rate.

2.3.2 Finite Reinsurance

Non-life finite reinsurance contracts are contracts of significant but limited risk transfer whereby the economics of the business ceded under the reinsurance contract have not been entirely transferred from the cession undertaking to the reinsurance undertaking through the inclusion of one or a number of risk or profit limiting features in the reinsurance contract.

There are a number of features commonly used in many non-life reinsurance contracts in the global reinsurance market, hereinafter called traditional reinsurance contracts. Examples of features that can be adapted to limit risk transfer or profit include (but are not limited to):

i) A notional or actual experience balance that reflects the experience of the contract and where such a balance, when positive, is due to the cession undertaking in the form of losses recoverable or as a form of profit commission or experience refund upon cancellation, termination and/or commutation.

ii) A notional or actual experience balance that reflects the experience of the contract and where such a balance, when negative, is due in full, or in part, to the reinsurance undertaking in the form of additional premium or payments and/or other economic changes to the terms and conditions of the contract.

iii) Cancellation, termination and/or commutation penalties that result in a significant reduction in coverage and/or result in a payback requirement by the cession undertaking.

iv) Contractual delays in the losses paid to cession undertaking beyond normal settlement periods or the inclusion of fixed loss payment schedules.

v) An aggregate contract limit that is less than the sum of the annual limits or the sum of the sub-section limits within the contract.

vi) Coverage for later periods that are explicitly or implicitly adjusted by the experience of earlier periods.

vii) Sliding scale commissions and/or loss corridors.

The maximum possible present value rate on line ("R") is defined as a percentage between 0% and 100% such that

R = P / L, where

P= the present value of the maximum possible expected premium or other payments payable to the reinsurance undertaking under the contract, and

L= the present value of the maximum aggregate limit available under the reinsurance contract.

The present value of the maximum aggregate limit will be the maximum limit available under the non-life reinsurance contract multiplied by a discount factor that represents the expected time value of money for the exposure(s) covered under the reinsurance contract considering the most conservative payout profile for the reinsurance undertaking's economic position. The payout profile must be based upon historical payout patterns of the cession undertaking, if available, or otherwise from industry profiles. Where there is no explicit maximum aggregate limit in the reinsurance contract, the reinsurance undertaking may estimate the maximum possible aggregate loss recoverable for the purpose of this calculation.

In the Financial Regulator's opinion, the combination of one or more of the above risk or profit limiting features and the maximum possible present value rate on line (R) of a contract are therefore the key determinants for differentiating between finite and traditional non-life reinsurance contracts by the reinsurance undertaking.

3 Contract Documentation

Regulation 62 of S.I. 380 prescribes mandatory policy conditions with which non-life finite reinsurance contracts must comply where they are entered into on or after the 15th of July 2006. An exception to this is Regulation 62(1)(d), which is only required to be included in finite reinsurance contracts entered into on or after the 1st of January 2007.

These requirements do not apply retroactively, for instance to multi-year or continuous reinsurance contracts first entered into before the above dates.

In accordance with Regulation 62, finite reinsurance contracts must reflect the substance of the agreement between the reinsurance undertaking and the cession undertaking and include the required mandatory policy conditions. Reinsurance undertakings must ensure that all reinsurance contract documents are clearly drafted, setting out the type of reinsurance contained in the contract, including the nature of any subsections, with terms and conditions of the contract set out in a manner that does not confuse the substance of the transaction.

Retrocession contracts between the non-life reinsurance undertaking and an independent third party reinsurance undertaking would not, in the Financial Regulator's opinion, fall within Regulation 62 (1) (b), at least where the risk(s) covered by such retrocession contracts are not themselves indemnified in whole or in part by another reinsurance undertaking controlled by the cession undertaking or any other undertaking or persons linked to the non-life reinsurance undertaking and the cession undertaking.

4 Prudential Rules

The requirements of this Chapter, other than 4.2, are hereby made pursuant to Regulation 61 of S.I. 380. The solvency requirements for non-life finite reinsurance shall be determined on the basis of a risk based model called the Augmented Solvency Model ("ASM"), as detailed herein.

4.1 Available Solvency Margin

The available solvency margin must consist of items detailed in S.I. 380, except for the reduction in available solvency margin required in the section 4 (2) under Schedule 1 of S.I. 380 that refers to the difference between the undiscounted technical provisions or technical provisions before deductions as disclosed in the notes on the accounts and the discounted or technical provisions after deductions.

4.2 Required Solvency Margin

The required solvency margin ("Required Solvency Margin") must be determined on the basis of the Augmented Solvency Model for non-life finite reinsurance ("ASM_{NLFR}") and shall be equal to the sum of the following three risk charges:

A = an investment charge ("Investment Charge")
B = an underwriting charge ("Underwriting Charge")
C = an operational charge ("Operational Charge")

The Required Solvency Margin may be subject to adjustment by the Financial Regulator based upon information derived from additional disclosures received from a reinsurance undertaking. Reinsurance undertakings that experience difficulties in applying the ASM_{NLFR} should contact the Financial Regulator directly.

4.2.1 Investment Charge (A)

Regulation 26 of S.I. 380 sets out the requirements for assets covering technical provisions and the Financial Regulator has issued guidance for reinsurance undertakings on the admissibility of certain assets under a prudent person approach.

The Investment Charge (A) is equal to the sum of the Asset Risk Factors detailed in Appendix 1 multiplied by the market value of the relevant assets covering technical provisions (to include any assets held against business classified as finite reinsurance but not accounted for as reinsurance). Therefore, the Investment Charge (A) for the asset classes 1 through x, as per Appendix 1, is:

$$\mathbf{A} = \sum_{1}^{x} \mathbf{A}_{mk} * \mathbf{F}_{a}, \text{ where}$$

A_{mk} = the market value of the assets covering technical provisions.
F_a = asset risk factors, as per Appendix 1.

4.2.2 Underwriting Charge (B)

Each finite reinsurance contract must be allocated to the following reinsurance contract type:

a) Facultative reinsurance business: reinsurance of part or all of a single policy, with separate negotiations for each cession.
b) Proportional treaty reinsurance business: reinsurance that obliges the cession undertaking to cede and the reinsurance undertaking to assume an agreed portion of insurance policy premium and the accompanying insurance liability associated with a group of policies written by the cession undertaking.
c) Non-proportional treaty reinsurance business: reinsurance that obliges the cession undertaking to cede and the reinsurance undertaking to assume an agreed risk for a group of policies written

by the cession undertaking that is not in proportion to either the policy premium or the insurance liability.

Where a finite reinsurance contract contains an element of two or three of the above types, the finite reinsurance contract must be allocated to one type according to the largest limit of indemnity offered under the contract. The Financial Regulator will consider other methods of allocation as presented by a reinsurance undertaking provided such other methods are justified and supported by an analysis comparing the calculations under the different methods of allocation.

The net written premium (including any premium amounts withheld by cession undertakings) and the net outstanding claim reserve (including any amounts withheld by cession undertakings and including any IBNR) must then be allocated according to the limits of indemnity offered under the contract to the following classes of business (details of the EU classes of business that fall into each of the above classes are contained in Appendix 2):

1) Accident and health
2) Property catastrophe
3) Other property (other than property catastrophe)
4) Professional lines (i.e. professional indemnity and D&O business)
5) Motor (including property damage and liability claims)
6) Other casualty (other than professional lines and motor)
7) Marine, energy, aviation and transport (including property damage and liability claims)
8) Credit and suretyship
9) Other business lines not represented in the above classifications

The Underwriting Charge (B) is equal to the sum for each finite reinsurance contract of:

a) the sum of the Premium Risk Factors (“F_p”), detailed in Appendix 3, multiplied by the Adjusted Premium Base (“P_a”) for each class of business, and
b) the sum of the Reserve Risk Factors (“F_r”), detailed in Appendix 4, multiplied by the Adjusted Reserve Base (“R_a”) for each class of business.

The adjusted premium base (“P_a”) is calculated by adjusting the Net Written Premium from each finite reinsurance contract (including any premium amounts withheld by cession undertakings) as follows:

$$\mathbf{P_a = NWP*(1-R)} \text{ where:}$$

NWP = Net Written Premium
R = maximum possible present value rate on line

The Net Written Premium from a finite reinsurance contract is the gross written premium less any returned premium less premium for retrocession that inures to the benefit of the finite reinsurance contract.

The Adjusted Premium Base is then allocated to a class of business, c_1 through c_9, according to the limits of indemnity offered under the contract for each of the classes of business. The sum of the Adjusted Premium Base (“P_a”) multiplied by the Premium Risk Factors (“F_p”), detailed in Appendix 3, for each class of business is equal to the premium charge part of the Underwriting Charge for that finite reinsurance contract.

Similarly, the adjusted reserve base (“R_a”) is calculated by adjusting the net outstanding claim reserve for each finite reinsurance contract (including IBNR) as follows:

$$\mathbf{R_a = NOCR*(1-R)} \text{ where:}$$

NOCR = net outstanding claim reserve

R = maximum possible present value rate on line

The Adjusted Reserve Base (“R_a”) is then allocated to a class of business, c_1 through c_9, according to the limits of indemnity offered under the contract for each of the classes of business. The sum of the Adjusted Reserve Base (“R_a”) multiplied by the Reserve Risk Factors (“F_r”), detailed in Appendix 4, for each class of business is equal to the reserve charge part of the Underwriting Charge for that finite reinsurance contract.

The reinsurance undertaking may pool a number of finite reinsurance contracts together for the sake of calculating the Underwriting Charge, provided the finite reinsurance contracts have similar transaction structures, coverages and terms. An estimate for the weighted average maximum possible present value rate on line for the pool may be calculated provided the estimate is tested for reasonableness. If the reinsurance undertaking uses a number of different calculations to arrive at the estimate for the pool, the calculation that results in the highest solvency must be used. Alternatively the lowest maximum possible present value rate on line in the pool may be used in calculating the Underwriting Charge.

Therefore in summary, the Underwriting Charge (B) for the reinsurance contracts 1 through x is:

$$\mathbf{B} = \sum_{1}^{x} \left(\left(\sum_{c1}^{c9} \mathbf{P_a * F_p} \right) + \left(\sum_{c1}^{c9} \mathbf{R_a * F_r} \right) \right), \text{ where:}$$

P_a = adjusted premium base

R_a = adjusted reserve base

c_1 to c_9 = classes of business, as per Appendix 2.

4.2.3 Operational Charge (C)

There shall be an explicit operational charge for non-life reinsurance undertakings carrying on finite reinsurance. The Operational Charge (C) is equal to the sum for each non-life finite reinsurance contract of:

i) the sum of 20% of the Premium Risk Factors ("F_p"), detailed in Appendix 3, multiplied by the sum of the Net Written Premium less the Adjusted Premium Base ("P_a") for each class of business, and
ii) the sum of 20% of the Reserve Risk Factors ("F_r"), detailed in Appendix 4, multiplied by the sum of the Net Outstanding Claim Reserve less the Adjusted Reserve Base ("R_a") for each class of business,

with such an amount subject to a maximum of 12.5% of the sum of the Asset Charge and the Underwriting Charge for each finite reinsurance contract.

The reinsurance undertaking may pool a number of non-life finite reinsurance contracts together for the sake of calculating the Operational Charge, as per the calculation for the Underwriting Charge.

Therefore in summary, the Operational Charge (C) for the reinsurance contracts 1 through x is:

$$\mathbf{C = min\ \{((A+B)*0.125), X\}}, \text{ where:}$$

$$\mathbf{X = \sum_{1}^{x} ((\sum_{c1}^{c9} (P_x * F_p * 0.20) + (\sum_{c1}^{c9} (R_x * F_r * 0.20))}, \text{ where:}$$

P_x =	NWP - P_a , or NWP*R
R_x =	NOCR – R_a , or NOCR*R
c_1 to c_9 =	classes of business, as per Appendix 2.

4.3 Additional Disclosures

Non-life reinsurance undertakings carrying on non-life reinsurance must make the following disclosures based on which the Financial Regulator may adjust the required solvency margin:

- Asset Concentration;
- Business Diversification;
- Aggregation and Catastrophe; and,
- Liquidity and Credit.

These disclosures are required under Regulation 21 of S.I. 380 and are detailed in the Regulatory Returns section of this paper in Chapter 6.

Where any of the disclosures cover issues that are deemed to be material[3] to the business of the non-life reinsurance undertaking under the prudent person principle, the strategies developed by the non-life reinsurance undertaking to counter any risks and, where available, the calculations used to quantify such risks must also be disclosed to the Financial Regulator.

4.4 Minimum Guarantee Fund

The Required Solvency Margin shall be subject to a minimum guarantee fund ("MGF") of €50 million for those non-life reinsurance undertakings carrying on non-life finite reinsurance[4]. For the avoidance of doubt, where a non-life reinsurance undertaking only classifies a material part of their business as non-life finite reinsurance, then the minimum guarantee fund applies across all of business of the non-life reinsurance undertaking.

4.5 Internal Capital Models

At the sole option of the reinsurance undertaking, as an adjustment to the solvency requirements 4.2, 4.3 and 4.4 herein, the Financial Regulator

[3] Material here is material for the portfolio of non-life reinsurance business.
[4] Non-life finite reinsurance as per the definition in 1.1 herein.

shall assess the capital required by an internal risk management model of a reinsurance undertaking classifying their business, or a material part thereof, as non-life finite reinsurance.

4.5.1 Model Requirements

In order to provide a basic framework of supervisory standards considered applicable in the process of assessing internal models, the following principles will be applied by the Financial Regulator:

4.5.1.1 Governance

Senior management of the reinsurance undertaking must be actively involved in the internal risk management strategy of a reinsurance undertaking and the Board of Directors must approve the formal internal risk management strategy of the reinsurance undertaking. The rationale for use of an internal model reflecting the risk management strategy must also be documented as part of the formal internal risk management strategy. In particular, the structure and parameterisation of the model and the probability of failure used within the model must be appropriate for the risk appetite of the reinsurance undertaking. The internal capital model must be robust enough to encompass all of the material risks of the business of the reinsurance undertaking. The policies and procedures governing the use of the internal capital model must be reviewed regularly (not less than once a year) by the reinsurance undertaking's own internal auditing process.

4.5.1.2 Use-Test

The reinsurance undertaking’s internal capital model must be closely integrated into the risk management process of the reinsurance undertaking. Its output shall accordingly be an integral part of the process of planning, monitoring and controlling the reinsurance undertaking’s risk profile (e.g. economic capital, setting risk appetite, profitability, etc.).

4.5.1.3 Data

To ensure effective underwriting, the culture of the reinsurance undertaking must support accountability for valid information used in the model. Areas of interest underlining the importance of data integrity must include (but not be limited to): the reinsurance undertaking's I.T. infrastructure, collection of historic data, use of external data as well as the experience, judgment and sound degree of prudence in assessing the completeness and accuracy of data. The broader concept of data integrity would apply to the development and maintenance of well-controlled processes including those that measure risk and performance.

4.5.1.4 Ongoing Validation

Any internal capital model must be benchmarked against the solvency requirements of the ASM_{NLFR} herein. The essential elements in the ongoing validation of an internal capital model by a reinsurance undertaking must include a meaningful differentiation of risk and assessment of transaction characteristics, an assignment of exposures, and the risk quantification or parameter estimation. There must be independence in model validation, which must be demonstrated, and the risk quantification of parameters must be the result of a disciplined process by the reinsurance undertaking. Model validation must be carried out by resources independent of the business units to which it applies and independent of the model development unit. This independent review must include the following components:

i) demonstrate that the model takes into account all material sources of risk;

ii) confirm that the model's mathematical methods are analytically robust; and

iii) illustrate that the data and parameters used to estimate the expected and the unexpected loss (at some specified confidence level) have a solid empirical basis.

If the Financial Regulator is not satisfied with the robustness or independence of the review, it may require external validation before any internal capital model will be considered.

Key considerations applied by the Financial Regulator to an internal capital model will include, but will not be limited to the following:

a) **Transparency:** all reinsurance undertakings must have a transparent process regarding all aspects of their risk management process.
b) **Policies & Procedures:** all reinsurance undertakings must have policies and procedures covering the design, role and scope of expert judgment, and the usage of the estimated risk parameters in monitoring and controlling risk.
c) **Adaptability:** estimates must reflect the implications of technical advances and new data and other information, as it becomes available. Reinsurance undertakings must review their estimates when new information comes to light and, in any event, at least on an annual basis.
d) **Prudence:** prudence must be applied in the estimation of risk parameters. Where methods or data are less than satisfactory and the expected range of errors is larger, the margin of conservatism must be larger. Reinsurance undertakings must document their bases (including reasons for its choices) for estimating margins of prudence, including but not limited to their best estimates.

If the Financial Regulator is not satisfied with the robustness or independence of the review, it will require external validation before any internal capital model will be considered.

4.5.1.5 Stress Testing

The stress testing applied to key assumptions will be an important part of building up a detailed understanding and level of comfort with an internal capital model. The internal capital model must be able to undergo significant stress testing, particularly in reference to material assumptions used, the underwriting cycle in which it is operating, correlations assumptions, any possible catastrophic or aggregation events or changes in market conditions and/or economic assumptions that could adversely impact the firm. In particular, reinsurance undertakings must stress test their portfolio to assess the impact of a number of possible extreme "fat-tail" events occurring in one financial year.

4.5.2 Directors' Report

Applications for using an internal capital model that meets the basic framework of supervisory standards outlined herein will be considered by the Financial Regulator. Applications must be signed by at least two directors of the reinsurance undertaking and be made up of a Directors' Report to include, but not be limited to:

- A brief overview of the internal risk management strategy of a reinsurance undertaking and the procedures used to monitor compliance with such a strategy.
- A statement of responsibility, to include attestation that the reinsurance undertaking's systems for its risk management are sound, implemented with integrity and are in compliance with principles applied by the Financial Regulator.
- Confirmation that all relevant professional staff have an appropriate understanding of the reinsurance undertaking's internal model and associated management reports.
- A summary of the structure of the internal capital model with an explanation for the selected parameterisation, the probability of failure and any capital allocation calculations used within the model.
- A summary of the material input assumptions used in the model with background analysis on historical and industry data performed to substantiate the assumptions.
- Details of any material weaknesses or exceptions found during the course of any review of the model, the effect of the weakness or exception and work undertaken to address the weakness or exception.
- Any proposed material changes to the model currently anticipated or under way and the nature of those changes.
- Any material developments, findings or plans which may affect the review, assessment, or functioning of the internal model.

- A brief summary of the output of the internal capital model, any stress testing performed, and the capital requirements selected as the recommended capital required by the reinsurance undertaking.

Where supplementary documentation is required to support any of the above details, these should be included in an appendix to the Directors' Report on the reinsurance undertaking's internal capital model.

5 Systems and Controls

The Financial Regulator developed its views in this chapter having considered the provisions of the Reinsurance Directive, S.I. 380, and international standards in this area (including Guidance Paper No. 11 of October 2006 of the IAIS). This Chapter is a supplement to the requirements for corporate governance issued by the Financial Regulator[5].

5.1 General

A robust internal controls system is critical to effective risk management and a foundation for the safe and sound operation of a reinsurance undertaking. It provides a systematic and disciplined approach to evaluating and improving the effectiveness of the operation and assuring compliance with laws and regulations. It is the responsibility of the Board of Directors to develop a strong internal control culture within its organisation, a central feature of which is the establishment of systems for adequate communication of information between levels of management.

Internal controls should be designed to ensure and demonstrate that the firm is being operated within the parameters set by the Board of Directors. These controls should be adequate for the nature and scale of the business and proportional to the size and complexity of the business. The oversight and reporting systems must be sufficient to allow the board and management to monitor and control the operations. The onus will be on the Board of Directors to ensure that such systems are applicable to the reinsurance undertaking and that such systems meet their ongoing corporate governance duties and responsibilities.

[5] See Corporate Governance for Reinsurance Undertakings, June 2007 available in the reinsurance section of the Financial Regulator's website www.financialregulator.ie

Any reinsurance undertaking that is or intends to be active in the non-life finite reinsurance market (including reinsurance undertakings who are, or intend to be, active in carrying on reinsurance where the risk transfer is not significant) must have policies and procedures specifically relating to the classification of finite reinsurance contracts (to include risk transfer) and contract documentation. The Board of Directors is responsible for endorsing such policies and procedures and ensuring that these policies and procedures are implemented and monitored by the relevant professional staff throughout the organisation. Supervisory risk assessments will be carried out by the Financial Regulator to verify that policies and procedures are properly defined and monitored.

5.2 Classification Policy

The principles-based approach of the Financial Regulator places an emphasis on the responsibility of senior management and the Board of Directors to formulate policies and procedures that are applicable and proportionate to its business. The classification of reinsurance contracts as non-life finite reinsurance is a matter for the reinsurance undertaking to determine based upon the substance of the reinsurance contracts written or to be written by the reinsurance undertakings, and reinsurance undertakings must have a written policy for the classification of finite reinsurance business which has been approved by the Board of Directors.

The classification policy must have regard, inter alia, to this paper, S.I. 380, relevant IAIS papers, actuarial and accounting standards, the advice of professional advisors, or upon other criteria determined by the Board of Directors. The classification policy must be consistent with the classification of finite reinsurance contracts across the group of which the reinsurance undertaking is a part. The classification policy must also be subject to regular review, particularly pertaining to areas where new practises or standards emerge.

The senior management of the non-life reinsurance undertaking and/or the Board of Directors may be required to explain and justify the rationale behind their classification policy to the Financial Regulator.

5.1.1 Contract Analysis

Any reinsurance undertaking in the non-life finite reinsurance market as set out in this paper (including reinsurance undertakings who are, or intend to be, active in carrying on reinsurance where the risk transfer is less than “significant”) must undertake an analysis of all reinsurance contracts where risk transfer, as per the requirements of 2.3.1 herein, is not reasonably self-evident. In determining whether risk transfer is reasonably self-evident, the reinsurance undertaking may use the judgment of its senior management and/or Board of Directors in determining criteria consistent with industry best practice. It appears to the Financial Regulator that the Risk Transfer Testing Practice Note published by the American Academy of Actuaries in November 2005 and updated in January 2007 forms a good basis for the development of an applicable analysis. The contract analysis must be performed on a consistent basis for all finite reinsurance contracts across the reinsurance undertaking and any analysis must be consistent with the substance of the business.

The Financial Regulator highlights the following items for consideration in relation to contract analysis by the reinsurance undertaking:

1) Model Type: The model type selected must reflect the complexity of the reinsurance contract under analysis. The Financial Regulator believes that no one method for evaluating risk transfer may be appropriate for use in all cases, so that a number of different tests must be applied in cases where risk transfer is marginal or in question. Sound and adequate methods include relative risk approaches, Value at Risk (VaR) methods, and Tail Value at Risk (TVaR) methods, including an Expected Reinsurer Deficit method.

2) Risks Considered: Any analysis of risk transfer must be limited to the consideration of underwriting and timing risks only. Any other risks such as credit, market, operational, liquidity and investment risks cannot be considered in a risk transfer analysis. For detailed and complex analysis, consideration of parameter risk (i.e. the uncertainty associated with picking the wrong parameters in any model) may also be considered.

3) Payout Patterns: Payout patterns are derived from historical payout patterns of the cession undertaking, if available, or from industry patterns. The variation in a payout pattern tested must be a function of the number of underlying risks (i.e. the greater the number of risks the less variation may be applied). Where there are unique payment characteristics of the underlying risk(s), these must be taken into account.

4) Summary: Each analysis must contain a brief summary to include the methodology and the assumptions used and the conclusions drawn. In particular, each of the primary assumption inputs must be referenced, where available, to historical loss or current exposure data. The output must include the net present value profit and loss outputs and the conclusions drawn from this analysis. Reference must also be made to the adequacy of the analysis performed in determining risk transfer.

6 Regulatory Returns

6.1 2007 Non-Life Finite Submission

The submission specified in 6.3 under section 1.2 of this paper must be lodged with the Financial Regulator in the manner and timeframe specified.

6.2 Disclosures

The disclosures herein by a non-life reinsurance undertaking carrying on finite reinsurance are required under Regulation 21 of S.I. 380. Where any of the following disclosures cover issues that are deemed to be material[6] to the business of the non-life reinsurance undertaking under the prudent person principle, the strategies developed by such reinsurance undertaking to counter any risks and, where available, the calculations used to quantify such risks must also be disclosed to the Financial Regulator.

The Financial Regulator may adjust the required solvency margin under the ASM_{NLFR} based upon the disclosures herein following an appropriate dialogue with the Financial Regulator.

6.2.1 Asset Concentration Disclosure

The non-life reinsurance undertaking must provide the Financial Regulator with details of the top ten asset classes, according to the asset classes in Appendix 1, held to cover technical provisions for non-life finite reinsurance business (including assets held on deposit for those reinsurance contracts that are classified as finite reinsurance and that are deposit accounted by the reinsurance undertaking).

[6] Material here is material for the portfolio of non-life finite reinsurance business.

6.2.2 Business Diversification Disclosure

The non-life reinsurance undertaking must provide the Financial Regulator with details of the gross and net written premiums for non-life finite reinsurance business split by the business classes in Appendix 2 and further split by geographical territory, if available. The Financial Regulator will also require details, if available, on the sum at risk, a limit profile or a similar statistic for each of the business classes in Appendix 2 and any related operations.

6.2.3 Aggregation and Catastrophe Disclosure

The Financial Regulator believes that it is sound practice to employ stress tests as a complement to capital modeling. The non-life reinsurance undertaking carrying on finite reinsurance must provide the Financial Regulator with details of the quantitative results of the stress tests and/or scenario analysis the reinsurance undertaking has carried out on its portfolio[7] according to its own risk management policies. This disclosure must include the confidence levels and key assumptions behind the analysis, and the distributions of outcomes obtained for the key individual risk factors. Details of the range of combined adverse scenarios that have been applied, how these were derived and the resulting capital requirements must also be included. Particular focus must be given to the impact of natural and man-made catastrophes across the portfolio and to the impact on the adequacy of claims reserves across the portfolio to changes in key assumptions relating to claim size and the timing of claim payments. The quality of the analysis submitted as well as the quantitative results will be taken into account by the Financial Regulator when considering whether to apply an adjustment of the required solvency margin.

[7] This analysis may be carried out against the portfolio of non-life finite reinsurance business or against the portfolio of all non-life reinsurance business.

6.2.4 Liquidity and Credit Disclosure

The Financial Regulator requires non-life reinsurance undertakings carrying on finite reinsurance to disclose any significant liquidity risks that the reinsurance undertaking faces over the next 24-month period on their finite reinsurance business and how these will be mitigated, controlled and monitored. Liquidity risk in this context means the ease with which an asset can be converted into cash to pay its liabilities without negative impact.

The Financial Regulator also requires non-life reinsurance undertakings carrying on finite reinsurance to disclose any significant credit risks that the reinsurance undertaking faces in its business. Credit risk in this context means the risk of loss if another party fails to perform its obligations or fails to perform them in a timely fashion. In particular, the Financial Regulator requires non-life reinsurance undertakings carrying on finite reinsurance to disclose the following in relation to their non-life finite reinsurance business:

- The amount of funds withheld split by underlying asset classes, where available, and further split by the exposure to the credit risk of the cession undertaking (e.g. secured by trust, letter of credit, or otherwise).
- The number of counterparties, the credit ratings of the different counterparties, and the maximum loss in the event of default of each of the counterparties.

6.3 Returns

Pursuant to Regulation 21 of S.I. 380, the returns, documents and information specified in this Chapter 6 are hereby required to be lodged with the Financial Regulator by an authorised reinsurance undertaking established in the State carrying on non-life finite reinsurance.

Within 4 months after the end of the non-life reinsurance undertaking's financial year (beginning with the first financial year ending on or after the 31st of December 2007), the following information must be submitted to the Financial Regulator:

1) Detailed calculations under Chapter 4: Prudential Rules, to include:
    a. A description of the methodology and assumptions used in any of the calculations.
    b. The disclosures required under section 4.3 (and detailed in section 6.2) of this paper.
    c. The information required under section 4.5 of this paper, if the non-life reinsurance undertaking wishes to avail of that option.
    d. Copies of the latest policies and procedures under Chapter 5: Systems and Controls.
2) Any other material information (for example, actuarial and other relevant reports, and the results of significant stress tests performed on the reinsurance undertaking's portfolio of non-life finite reinsurance business).

In an individual case or circumstance, the Financial Regulator may specify to a non-life reinsurance undertaking carrying on non-life finite reinsurance more frequent reporting intervals.

6.4 Prescribed Forms

The Financial Regulator will publish separately detailed forms required for the reporting of non-life reinsurance undertakings that will set out the detail of information to be reported and the accounting basis to be applied.

Appendix 1: Asset Risk Factors (F_a)

Cash	0.50%
Government Bonds	
- Grade 1	0.50%
- Grade 2 to 4, less than 1 year term	2.50%
- Grade 2 to 4, greater than 1 year term	5.00%
- Grade 5, less than 1 year term	6.00%
- Grade 5, greater than 1 year term	10.00%
Corporate Bonds	
- Grade 1	0.50%
- Grade 2 to 4, less than 1 year term	2.50%
- Grade 2 to 4, greater than 1 year term	5.00%
- Grade 5, less than 1 year term	6.00%
- Grade 5, greater than 1 year term	10.00%
Preference Shares	7.50%
Equities	15.00%
Property and Real Estate	15.00%
Mortgages	5.00%
Reinsurance Recoverable	
- Grade 1 to 3	2.50%
- Grade 4	5.00%
- Grade 5	20.00%
Discount on Claims Provision	12.50%
DAC	12.50%
Any Other Asset[8]	100.00%

[8] *Where the Financial Regulator requirements on asset admissibility for inter-company transactions or Funds Withheld assets are applied to ensure the value of the underlying assets is protected in the event of the insolvency of the cession undertaking, the reinsurance undertaking may look through to the underlying assets and apply the applicable factors (e.g. corporate bonds per grade, equities, etc). Otherwise, the applicable factors for corporate bonds per grade must be applied to the total asset to reflect the credit risk of the cession undertaking.*

The Grades above are equal the following ratings[9]:

Key	S&P	Moody's	AM Best	Fitch
Grade 1	AAA	Aaa	A++	AAA
Grade 2	AA+	Aa1	A+	AA+
Grade 3	A+	A1	A	A+
Grade 4	BBB+	Baa1	B++	BBB+
Grade 5	BB+ or below	Ba1 or below	B+ or below	BB+ or below

[9]*A reinsurance undertaking may nominate one or more of the rating agencies above to be used in determining all of the asset risk factors. If there is more than one credit assessment available from the nominated rating agencies, then the credit assessment that results in the higher asset risk factor must be selected.*

Appendix 2: Classes of Business (c_i)

AUGMENTED SOLVENCY MODEL CLASSES, PER SECTION 6.2.2.	EU CLASSES **PER POINT A OF THE ANNEX TO DIRECTIVE 73/239/EEC.**
1. Accident and health (c_1)	Class 1; ACCIDENT (including industrial injury and occupational diseases) Class 2; SICKNESS
2. Property catastrophe (c_2)	Class 8; FIRE AND NATURAL FORCES Class 9; OTHER DAMAGE TO PROPERTY
3. Other property (other than property catastrophe) (c_3)	Class 8; FIRE AND NATURAL FORCES Class 9; OTHER DAMAGE TO PROPERTY
4. Professional lines (i.e. professional indemnity and D&O business) (c_4)	Class 16; MISCELLANEOUS FINANCIAL LOSS Sometimes includes the following class; Class 13; GENERAL LIABILITY
5. Motor (including property	Class 3; LAND VEHICLES (other

damage and liability claims) (c_5)	than Railway Rolling Stock) Class 10; MOTOR VEHICLE LIABILITY The following two classes are sometimes included in / added onto Motor; Class 17; LEGAL EXPENSES Class 18; ASSISTANCE
6. Other casualty (other than professional lines and motor) (c_6)	Class 13; GENERAL LIABILITY
7. Marine, energy, aviation and transport (including property damage and liability claims) (c_7)	Class 4; RAILWAY ROLLING STOCK Class 5; AIRCRAFT Class 6; SHIPS (sea, lake and river and canal vessels) Class 7; GOODS IN TRANSIT (including merchandise, baggage and all other goods) Class 11; AIRCRAFT LIABILITY Class 12; LIABILITY FOR SHIPS (sea, lake and river and canal vessels)
8. Credit and suretyship (c_8)	Class 14; CREDIT INSURANCE Class 15; SURETYSHIP
9. Other business lines not represented in the above classifications (c_9)	Class 16; MISCELLANEOUS FINANCIAL LOSS Class 17; LEGAL EXPENSES Class 18; ASSISTANCE

Appendix 3: Premium Risk Factors (F_p)

Class of Business	Facultative	Proportional Treaty	Non-Proportional Treaty
Accident and health	10.0%	15.0%	20.0%
International prop cat	NA	NA	50.0%
Other property	12.5%	15.0%	25.0%
Professional Lines	20.0%	25.0%	30.0%
Motor	10.0%	15.0%	20.0%
Other Casualty	15.0%	20.0%	25.0%
Marine/energy/aviation/trans	20.0%	25.0%	40.0%
Credit and suretyship	20.0%	30.0%	50.0%
Other business lines	15.0%	20.0%	25.0%

Appendix 4: Reserve Risk Factors (F_r)

Class of Business	Facultative	Proportional Treaty	Non-Proportional Treaty
Accident and health	7.5%	12.5%	15.0%
International prop cat	NA	NA	17.5%
Other property	10.0%	11.0%	12.0%
Professional Lines	15.0%	17.5%	20.0%
Motor	10.0%	12.5%	15.0%
Other Casualty	10.0%	12.5%	15.0%
Marine/energy/aviation/trans	12.5%	14.0%	15.0%
Credit and suretyship	12.5%	15.0%	17.5%
Other business lines	10.0%	12.5%	15.0%

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