

Credit Risk

Current Thinking

Who I am –

- MA, in charge of RM business at Chubb Europe. More recently, joint credit referral for Europe and sit on credit committee.
- 15 years of dealing with RM business, familiarity with key issues.

What is Credit Risk?

Credit Risk is the *non-insurance financial risk* that an insurance company incurs in the provision of an *insurance contract*.

This broad definition can be best illustrated by examining the ways in which credit risk arises:

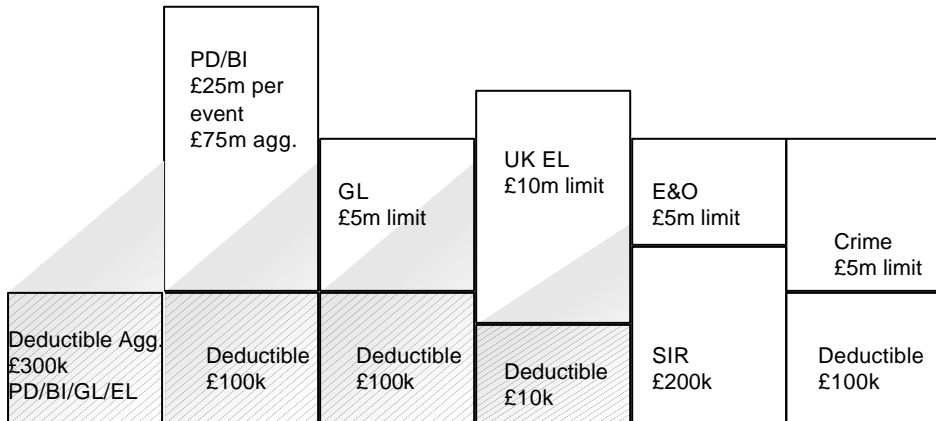
How Does Credit Risk Arise?

1. Deductibles
2. Captives
Gross Cession
Net Cession
3. Reinsurance

There are a whole array of ways that credit risk arises in the insurance transaction.

1. Deductibles – as opposed to SIR's. Deductibles are the responsibility of the insurance buyer to meet but only once the claim has been settled by the insurance carrier. Typically, these would be liability insurance contracts where an injured third party claims, has their loss settled by the insurance company and the insurance company seeks recovery from the policyholder. These are as distinct from an SIR – Self Insured Retention where the policyholder is responsible for the first part of every loss and also for the claims handling and loss payments. The deductible responsibility of the policyholder is where the credit risk arises. Should the policyholder be unable to meet its obligations, the insurance company will be unable to rescind claims payments already made or may have continuing statutory obligations such as under Employers Liability or Motor classes.
2. Captive programmes take two forms – direct writing captives and reinsurance captives. The first form do not generate credit risk as they operate as a full insurance company with all of the resources an insurance company needs from claims handling, underwriting, finance, etc. Reinsurance captives are by far the most popular due to the ease of establishment and the costs of doing so. They also do not need a network or resources of the same scale as a direct writing captive does. There are two types of reinsurance captive – gross and net cession captives. The gross cession captives assume 100% (or as close as possible to 100%) of the risk from the fronting company. This risk is then retroceded to a further reinsurer or reinsurers net of the captive retention. Net cession captives are more common in the UK and Ireland and reinsure the fronting company only what they retain. In both cases, the credit risk relates to the ability of the captive to meet its obligations. In the gross cession form, the risk is obviously greater where a panel of reinsurers are involved due to the size of the assumed risk.
3. Reinsurance. The insurance company issuing a policy which is reinsured faces a credit risk for the reinsurance company not being able to meet its obligations under the terms of the reinsurance. That risk is minimised in most cases by carefully selecting reinsurers who have been independently assessed by one or more of the credit rating agencies. These reinsurers would be held to be approved and can enhance the capital impact of the insurance transaction as a result. Further discussion of reinsurance security and impact on credit risk will fall outside of this presentation.

Deductible Structure

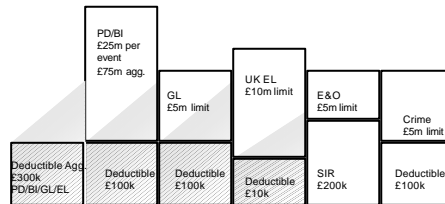


This hypothetical example illustrates a number of features:

1. The Property attracts no credit risk as loss payments would be made net of any deductible.
2. The E&O is an SIR, the policyholder is responsible for claims handling and loss payments within the limit.
3. The GL and EL are the areas that generate the credit risk.

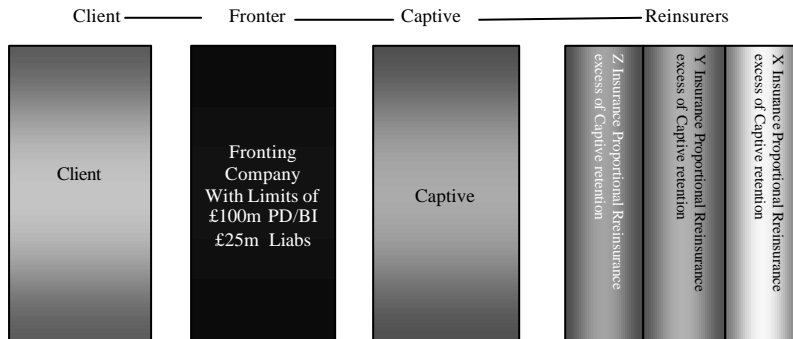
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Captives are the most frequently cited issue in management of credit risk. They are smaller entities than the parent and stand at arms length (for tax purposes). It is unusual for them to be rated by a credit rating agency and so their financial standing is less well known. They are often thinly capitalised also. Let's look at the two types of captive:

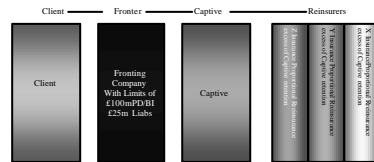
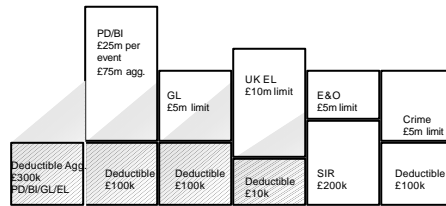
Gross Cession Captive



This example illustrates the 100% front to the captive and the credit risk that generates is, in this case large - £125m. The reinsurance security that the captive places mitigates this but a number of defined steps need to be followed in order to access this security. More on this later.

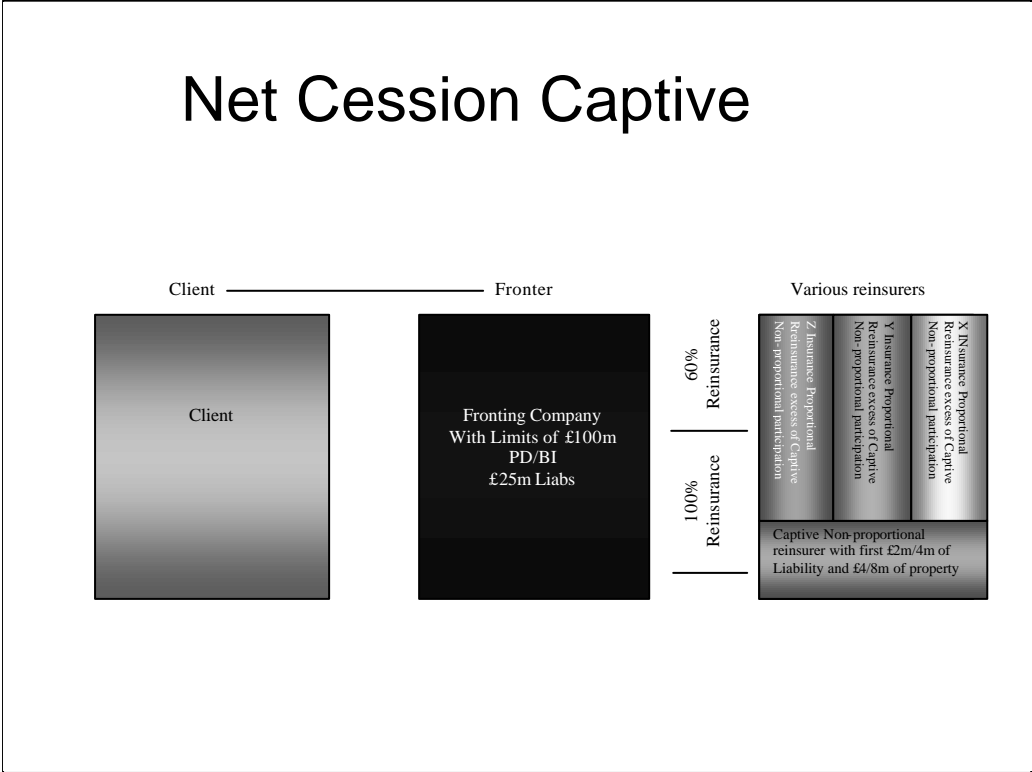
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We have considered the deductible and gross cession credit risk structures, the more usual structure for captives in this Region is net cession:

Net Cession Captive



This clearly illustrates the reduced credit risk to the fronting company with reinsuring only the captive element. The balance of reinsurance to reinsurance companies raises a separate issue of reinsurance security and credit risk which is outside of the scope of this debate.

How is Credit Risk Calculated?

- Aggregate of retention (deductible or Captive)
- Expected Losses
- Expected Losses less paid claims
- If aggregate is £12m in total that is the credit risk
- If expected losses within the £12m are £8m that is the credit risk
- If expected losses are £12m and paid claims are expected at £3m, the credit risk is £9m.

Different companies have different bases for calculating credit risk. In addition to the above bases, the financials of the entity representing the credit risk will have a bearing on the credit risk.

Credit Mitigation Instruments

1. Letter of Credit
2. Surety Bond
3. Trust Fund
4. Cash
5. Advance Concession Agreement
6. Simultaneous Payments Clause
7. Security Trustee Assignment
8. Reinsurance Cut-through Clause
9. Parental Guarantee

The purpose of collateral is normally explained and justified on two grounds. The first is that it represents replacement of capital for the fronter tied up by ceding premium and loss reserves to the captive as these amounts may be required to be shown in the fronter's account as uncovered liabilities, as they will for deductible amounts. Second is the credit risk of the claims payable under the fronting arrangements exceeding the ability of the client or captive to pay.

These are in a loose order. The best and most effective mitigation option is an LOC. Surety Bonds are not widely available. Trust Funds have drawbacks relating to the access a liquidator may obtain the event of insolvency. This is more true for cash.

An advance concession agreement works with captives and only really on first party classes. The effect is to confer a responsibility on the captive to provide funds to the insurer on demand to pay for specific losses.

The Simultaneous Payments Clause works in a similar fashion but eases cashflow more than mitigating credit risk.

Security Trustee Assignment - Under English law, for this type of agreement to be effective the insurer as beneficiary must have a registered security interest over the assets in order to obtain priority over unsecured creditors. Whilst it is possible for monies to be impressed with a trust, perfection of security is always desirable and this particular agreement would need some adaptation again for the European market.

Reinsurance Cut-through mitigates captive risk where there is a retrocession arrangement. Assuming all parties are willing to sign-up, this allows the fronting insurer to access (or cut-through to) the retrocession directly. This arrangement is not practically speaking very popular as there are dangers for the retrocession that they could be faced with double payments. In addition, as a matter of English law whilst it may be enforceable it runs a risk of being struck down as a preference in the event of a captive's insolvency.

In respect of the use of a Parental Guarantee, not only are parent companies reluctant to provide such guarantees but this may have certain tax disadvantages as there is then insufficient separation of the captive from the insured. In addition, it is necessary to ensure that the Memorandum and Articles of the Guarantor authorise the giving of a guarantee.

Impact on Insured Clients

- LOC
- Cash and Cash in trust
- Security Trustee Assignment

This depends heavily on the form of collateral demanded by the insurer. Where none is requested, there is no impact other than the fronting insurer becomes an ordinary creditor to the insured company. Cash and cash in trust clearly ties up resources of the insuring company. Security trustee assignment requires careful legal drafting and clearly impacts on the liquidity and useability of the assets secured in the trust.

Letters of credit can be of two forms – cash and non-cash collateralised. The former requires deposit of funds with the bank who then issue a guarantee to the insurer. The latter may be secured by assets or

Impact on Insurance Companies of Credit Risk

Unsecured Credit Risk impacts capital requirements:

1. Risk Based Capital requirements
2. Rating Agencies
3. Solvency II

Risk Based Capital

- Asset Risk
- Credit Risk
- Underwriting Risk
- Off-Balance Sheet Risk

In the past, the requirements of the Insurance Companies Act 1994 did not impose onerous capital requirements on insurers. The calculation was relatively simple. In more recent times, there has been a recognition of the drawbacks of this approach and many insurance companies have moved towards a risk based capital calculation. Risk-based capital is a method developed to measure the minimum amount of capital that an insurance company needs to support its overall business operations. Risk-based capital is used to set capital requirements considering the size and degree of risk taken by the insurer. As the current measurement stands there are four major categories of risk that must be measured to arrive at an overall risk-based capital amount. These categories are:

Asset Risk - a measure of an asset's default of principal or interest or fluctuation in market value as a result of changes in the market.

Credit Risk - a measure of the default risk on amounts that are due from policyholders, reinsurers or creditors.

Underwriting Risk - a measure of the risk that arises from under-estimating the liabilities from business already written or inadequately pricing current or prospective business.

Off-Balance Sheet Risk - a measure of risk due to excessive rates of growth, contingent liabilities or other items not reflected on the balance sheet.

In an insurance company's Balance Sheet, the second most important item on the assets side after investments is reinsurance recoverables. There is estimated to be over \$150Bn of reinsurance recoverables listed on insurance company accounts worldwide. That generates some nervousness amongst regulators. The assets of an insurance company could be worthless if this item is not capable of being substantiated. One of the components of this will be reinsurance recoveries due from captives. Using the risk based capital adequacy model, there is a reduction in capital surcharge if captive reinsurance is secured by adequate collateral. In a similar vein, another asset on the balance sheet is debtors. Reimbursable deductibles fall into this category and securing these also reduce this risk within the capital calculation. The FSA has now also published proposals for a new framework for risk-based capital requirements for both life and non-life insurers. Although the details of the calculations differ, the overall structure is the same for both types. The proposals were issued in July and August 2003; the consultation period ended on 30th November 2003.

Risk Based Capital & the FSA

- Minimum Capital Requirement (MCR)
- Enhanced Capital Requirement (ECR)
- Individual Capital Adequacy Standards (ICAS)
- Individual Capital Guidance (ICG)

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General Framework:

Insurers will be required to hold the higher of:

Minimum Capital Requirement (MCR)

as set out in EU directives

Enhanced Capital Requirement (ECR)

a more risk sensitive calculation specified by the FSA

The ECR calculations are obviously different for life and non-life insurers. However, for both types the calculations make various industry-wide assumptions that may not be met by individual firms, whose risk profiles may be different from the average. The FSA proposes to take these differences into account through the **Individual Capital Adequacy Standards (ICAS)** mechanism. They say that ICAS will

mean that firms will hold capital more appropriate to their business and control risks

emphasise the responsibility of senior management for ensuring that firms have adequate financial resources

Provide incentives for better risk management

ICAS will operate through **Individual Capital Guidance (ICG)**. The ICG will usually be at or above ECR, and will be affected by whether firms' risk assessment processes follow all the FSA's guidance. The ARROW assessments will be a major input.

Although ICG is only guidance, firms will be expected to notify the FSA if capital falls below the ICG level. In addition, firms that fail to meet the ICG will be expected to set out a plan to restore adequate capital.

Rating Agencies

Risk Assigned Capital

In a similar way, rating agencies also consider the risk base of the capital calculation. The importance of strong ratings is well understood. Rating agencies look carefully at reinsurance recoveries and collateral in their consideration of insurance company capital adequacy.

Solvency II

- Underwriting Risks
- Default risks
- Investment risks
- Operational risks

A more recent development in Europe is that of Solvency II. The original rules for calculation of capital were established by European Directive in the early '90's. In response to criticism concerning the current solvency system, the European Commission is developing new rules for insurance companies operating in the member states of the European Union (EU). In September of last year, the preparatory work was completed and the findings published. A concrete draft of the new supervisory regime is due to be presented in early 2005. It is envisaged that the regulations will take effect in 2007.

How it works:

The national supervisory authorities will review the required capital resources on the basis of pre-defined risk categories. In theory, companies must be able to demonstrate adequate solvency on almost a daily basis.

The major risk categories:

- Underwriting Risks: forecast risk for basic, major and accumulation losses (in each case for frequencies and average values) and adequacy of the underwriting reserves for reported and as yet unreported claims
- Default risks: from insurance business: receivables from reinsurers and receivables from policyholders and agents
- Investment risks: price and interest rate changes, currency risks, credit risks of individual issuers, or liquidity shortfalls and
- Operational risks: risks stemming from human error or equipment failure, dependence on external suppliers, legal risks

In the future, a certain minimum capital requirement will be determined for each of these risk categories. Under this so-called Solvency II concept, an insurer is allowed to verify its solvency by using an internal risk management model previously approved by the regulatory authority. The factors applied are reduced where security is taken to reduce credit risk.

There will be a move away from the current focus on net business since the from the solvency standpoint a risk transfer merely constitutes an exchange of the underwriting risk for a credit risk. This will cause a market shift and will result in a greater concentration on credit risk management.

Conclusion

Credit Risk is non-insurance risk

Captive and client retentions generate credit risk

Collateral reduces credit risk

Collateral carries cost

Credit risk is set to become a bigger issue for insurers with FSA and Solvency II regulations

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