



Credit Ratings & Research

Rating Methodology

Rating Criteria: INSURANCE

Version #4

Rating Methodology

Insurance

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Overview and Scope

This document provides an overview of Equifax Credit Ratings & Research' (EACR) criteria for assessing the rating of insurance companies. The document outlines the process, principles and methodology applied in a rating assignment.

The rating methodology constitutes the framework of analysis and specifies the application of credit risk driver analysis ('risk drivers'). Risk driver analysis captures the key drivers of a subject's capacity, capability and willingness to meet its financial obligations as and when they fall due.

Rating Methodology

The assessment of an insurer's credit rating comprises of the following sequence of risk assessments:

- Industry Risk
- Structural Risk
- Business risk
- Financial risk

Each of these risk assessment stages involves an examination of various risk drivers that impact the credit rating. EACR examines the:

- Subject's level of exposure to each driver
- Risk driver interdependencies as they apply to the subject's operations
- The level of control the subject exerts over these drivers
- Factors that mitigate the impact and likelihood of risk drivers
- Central estimate and the probability distribution of these impacts on the subject's immediate and sustainable cash flows.

In making these estimates EACR relies on internally developed financial models that are informed by inputs and forecast estimates provided by the subject.

Risk drivers are subdivided into qualitative and quantitative measures. Qualitative measures are assigned a weights and then scored. Both the qualitative and quantitative metrics are then evaluated on a concurrent basis and an overall risk score assigned.

The risk score is then benchmarked against the subject's industry and rating peers. The benchmarking process may result in the modification of the rating. This layer of the rating process ensures the consistent of application of EACR rating criteria and therefore the comparability of Equifax Credit Ratings & Research's.

The sections that follow detail the application of risk driver analysis under their respective analytical categories being – Industry Risk, Business Risk and Financial Risk.

Industry Risk Drivers

Risk Driver	Risk increases when risk driver is:
Regulation	Higher
Importance	Lower
Profitability	Lower

Industry Risk

The purpose of this analytical category is to identify risks associated within the system that the subject operates in. More generally, industry risk drivers emanate from: changes in legislation and regulation; catalysts that accelerate the progression of an industry through its life-cycle; the business cycle; product obsolescence; changes in consumer preferences; technology shifts; changes to entry barriers; industry capacity utilisation and capacity constraints; and changes in the competitive landscape and market dynamics that alter the balance of power between industry stakeholders.

More specifically, the industry risk drivers EACR considers for insurers are subdivided into the two sectors. These sectors are: property and casualty insurance (P&C); and life and annuity insurance (L&A). Some risk drivers are common to both these sectors and include:

Regulatory Policy: Regulation can act as both a catalyst and a moderator of competition in the insurance industry. But on balance – tighter regulation is viewed as more risky.

On the one hand regulation: reduces the risk of competitive asymmetry and prevents competitors taking market share by encouraging pricing stability and predictability; makes it more challenging for disruptive new entrants to join the market; and mitigates the agency risk associated with management obligations to shareholders. On the other hand, tight regulation reduces an insurer's ability to differentiate its products and stifles its ability to dynamically price its risk management services.

Systemic Importance: Governments, globally, have demonstrated their willingness to intervene and support industries that are viewed as essential to the functioning of the local economy. A high level of system importance provides support to a higher level of tangible, extrinsic government intervention in the event a subject lacks intrinsic resources to meet its financial obligations.

Stability of Profits: The stability of underwriting performance is an essential ingredient in a strong credit rating (investment grade and above) for an insurance company.

The stability of profits is mainly a factor of market concentration as well as the cyclicity of the industry. Industry concentration is mainly a result of entry barriers and the size of the market. Typically, a tightly regulated, small market will tend to exhibit more concentration and profit stability than a less regulated and large market. Cyclicity in the form of movement through the underwriting cycle is mainly associated with the P&C insurance segment and relates to the pricing environment greater than concentrated.

The level of concentration in an industry is mainly evidenced in the historical and forecast margins of the typical competitor. EACR reviews the trend and composition of margins – looking for sources of sustainable profits and their underlying causes.

P&I Segment

Risk Driver	Risk increases when risk driver is:
Cyclicality	Higher
Product	Higher
Fragmentation	Higher

L&A Segment

Risk Driver	Risk increases when risk driver is:
Competition	Higher
Demographics	Higher
Investments	Higher

Structural Risk

Risk Driver	Generic risk level
Mutual	Low/Moderate
Public	Moderate

Most insurers assessed by EACR operate across both the P&C and L&A sectors. Risk assessment of these entities entails a review of their respective P&C and L&A businesses in isolation followed by an assessment of the mix of earning contribution of these segments to the subject's overall – current and projected- financial performance.

In addition to the industry risk drivers discussed above, segment risk driver analysis

The **P&I** segment has favourable diversification characteristics that support underwriting facilitate superior risk adjusted returns for non-specialist underwriters. This means that new entrants are a constant threat. In particular, this characteristic of the P&I segment caps its profitability when the underwriting cycle recovers after a series of correlated catastrophes. Poor risk based pricing is usually the result of: a high frequency of catastrophes – leading to a shorter underwriting **cycles**; a high level of industry **fragmentation**; and **product** risk that results in exposure to low frequency, high severity losses such as liability insurance.

The **L&A** segment comprises of very predictable and short-tail risk that makes it attractive to well established non-insurance financial institutions such as banks. The risk drivers that impact this segment are typically: price based **competition**; changes in b; and volatility of **investment** returns.

Structural Risk

The purpose of this analytical category is to identify risks resulting from the legal form, or constitution, of the subject.

Mutual: An insurance mutual is – typically – a private company owned by its policyholders. Mutual structures entail low structural risk. These entities have a high incentive to hold excess capital and liquidity. They are managed conservatively with the sole purpose of providing an captive risk management — economically and conservatively. The emphasis on the executive team is risk management rather than profit generation. Moreover, mutuals have a constitutional right to make capital calls on their members so as to support their capital base.

Public: Public listed company structures give rise to moderate levels of structural risk. These risks arise from the conflicts of interests of policy holders and shareholders and the agency risk associated with management alignment with shareholder. When considering the rating level of a public listed insurance company structural risk analysis focuses on an assessment of corporate governance and the independence of the board and management team. EACR looks for evidence of consistency of documented company policy and historical practice.

Business Risk

The purpose of this analytical category is to identify risks, also known as idiosyncratic risks, associated — specifically — with the subjects business. These risks may be structural or cyclical in nature and are usually within the scope of management’s control. Management influence business risk through the formulation and implementation of their strategic vision for the company.

Underwriting Policy: Management may set: prescriptive or principle based; formal or informal policy regarding the acceptability of risks underwritten. This policy will usually specify the level of risk retained and reinsured as well as controls around concentration risk focused customer and sector limits. Area reviewed her include; the scope and depth of the underwriting policy; the capacity and willingness to monitor and enforce the policy; the commitment to prudent underwriting standards; as well as the compromises made at the troughs of the underwriting cycle.

Portfolio Risk: What is the long-term portfolio strategy. What does it mean for profitability, stability and earnings mix?

Segment Risk: The risk of loss varies with product segment. Risk level - as measured by expected loss (probability of loss multiplied by exposure at loss) - for various segments is tabulated in the left margin.

Business Mix: Diversity of operations may provide strong – intrinsic – catastrophe related loss mitigation. Multi-line insurers providing both P&I as well as L&A insurance are usually large, global, listed companies with strong balance sheets and stable cash flows. At the other end of the spectrum, single-line, private companies tend to focus on a niche market segment. The cash flow of such entities tends to exhibit a high level of cyclicity resulting from a lack of diversification benefits.

Reinsurance Quality: Re-insurance treaties serve to protect the balance sheets of the insured by transferring and sharing part of the underwriting risk so the insurer’s re-insurance policy is analysed in concert with its segment exposures and portfolio risk.

The type and structure of re-insurance arrangement has a material impact on the risk profile of the insurer. Re-insurance treaties may be proportional or non-proportional in nature. A proportional treaty means that when the underwriter writes risk the reinsurer accepts a certain – predefined - proportion of that risk. This also means the reinsurer receives a commensurate part of the premium and shares in the loss associated with that policy.

In the case of surplus risk, the reinsurer indemnifies the insurer from losses that reduce its capital surplus to a given threshold. This protects the insurer’s policy holders by supporting the insurer’s capital base. Surplus risk re-insurance is key to non-life insurers. Non-life enters into excess of loss cover and catastrophe excess of loss which covers the overall liability that devolves on the primary insurer arising from a single event.

Segment Risk

Risk Level	Segment
Moderate risk	Fire, Engineering, Rural, Marine-hull, Marine-Cargo
High risk	Health, Liability, Motor, Aviation.

The rating of the re-insurer is also informs the ratings process. It is important that the reinsurer's credit rating be strong.

Reinsurance Capacity: Re-insurance also serves to increase an insurers underwriting capacity — thereby increasing throughput and, so, profitability.

The cost of reinsurance can be a major driver of the profitability. This is mainly the case when the reinsurance is conducted on a quota basis. An insurer may be able to achieve an underwriting cost advantage through securing competitive reinsurance treaty.

Market position: The market share and key competitive advantages in each business segment will drive the sensitivity of the business cash flows to the underwriting cycle. A well-entrenched specialist insurer with little completion will not have to resort to discounting in order to sustain revenue growth.

EACR also investigates the overall market potential for each of the insurer's product lines. Strong growth markets will reduce pricing pressure; it will drive innovation and differentiation – rather than – cost management.

Asset management: Stable investment portfolio returns augment and strengthen an insurer's loss absorption capacity and increases the insurers capacity to write and retain risk. A history of stable investment returns through several business cycles is an indicator of sound asset management practice.

In examining an insurers investment assets, key elements reviewed include: composition and mix; the liquidity; suitability with respect to the types of underwriting risks retained on balance sheet; and valuation assumptions (IFRS requires insurance assets to be market to market).

Financial Risk

EACR uses quantitative measures to benchmark and measure the financial risk profile of an insurer. A selection of these measures and their interpretations are tabulated below.

RATIO	Risk Increases	Calculation	Description
Overall Profitability	Lower	$\frac{\text{Net Profit After Tax}}{\text{Net Written Premium}}$	This indicator reflects the current year's level of profitability and its contribution to the growth of the capital base.
Underwriting Profitability	Lower	$1 - \text{Expense Ratio} - \text{Claims Ratio}$	This indicator reflects the profitability of the core underwriting business of an insurer.
Risk Retention	Lower	$\frac{\text{Net Written Premium}}{\text{Gross Written Premium}}$	This indicator reflects the policy and efficiency of management in managing risk and return through reinsurance
Non Premium Income	Lower	$\frac{\text{Operating profit (EBIT)} - \text{Underwriting Profit}}{\text{Net Written Premium}}$	This indicator reflects the profitability of the core underwriting business of an insurer.
Premium Receivable Days	Higher	$\frac{\text{Premium Due from Policy Holders} * 365}{\text{Gross Written Premium}}$	This indicator reflects the insurer's ability to collect its premium revenue in a timely manner. Faster cash conversion supports higher investment income.
Gearing	Higher	$\frac{\text{Total Liabilities}}{\text{Total Assets}}$	This indicator reflects the financial leverage of the insurer.
Claims Paying Capacity	Lower	$\frac{\text{Net Written Premium}}{\text{Net Technical Reserves}}$	This indicator, also known as the Technical Reserve Ratio, reflects the adequacy of the current year's premium income to cover policy holder liabilities.
Solvency	Lower	$\frac{\text{Total Assets} - \text{Total Liabilities}}{\text{Net Written Premiums}}$	This indicator reflects the financial viability of the insurer. It measures the insurer's loss absorption capacity independent of the level of capital protection offered by reinsurance contracts.
Expense Ratio	Higher	$\frac{\text{Commissions Paid} + \text{Acquisition Costs} + \text{Other Non Reinsurance Expenses}}{\text{Net Written Premium}}$	This indicator reflects the cost efficiency of an insurer.
Claims Ratio	Higher	$\frac{\text{Claims Paid} - \text{Reinsurance Inwards}}{\text{Net Written Premium}}$	This indicator reflects the quality and quantum of risk from insurance policies written by the insurer in any given year.
Net Technical Reserves	Higher	$\begin{aligned} &\text{Unearned Premiums} + \text{Claims Liability} \\ &- \text{Reinsurance Receivable} \\ &- \text{Deferred Acquisition Costs} \\ &- \text{Deferred Reinsurance Premiums} \end{aligned}$	This indicator reflects the insurer's cumulative level of exposure to claims against insurance policies in force.