

# **Rating Methodology Insurance Companies**

Fedafin's methodology for rating assignments to public and private sector insurance companies

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#### 1. General Remarks

This rating methodology describes the general principles and criteria for the credit risk assessment of private and public sector insurance companies.

The insurance company issuer rating is a long-term credit rating reflecting our opinion of the relative creditworthiness of the issuer. Specifically, the issuer rating reflects an issuer's ability to fully and timely meet senior unsecured debt obligations. According to our monitoring policy for standard annual rating updates, our rating opinion covers a period of one year. However, when analysing the creditworthiness of an issuer, more than one year is taken into consideration by the analysts. The issue of stability in rating assignments is addressed by including forward-looking criteria and stability factors and by using appropriate analytical methods and valuation approaches. We therefore believe that the rating methodology for insurance companies meets the requirements for a through-the-cycle rating as far as possible.

This rating methodology describes a number of risk factors and criteria that may have an impact on the rating assignment. Nevertheless, the risk profiles of individual companies may be very different, and the rating team may classify certain criteria as not relevant or include other criteria not described in this methodology. One example is the distinction between private and public sector companies. For private sector companies, the rating assessment is largely driven by financial ratios and business and corporate risk factors. In contrast, for public sector companies, guarantees and extraordinary public support may be much more important to the credit rating assessment than the issuer's current financial situation or business risk factors. The rating team may

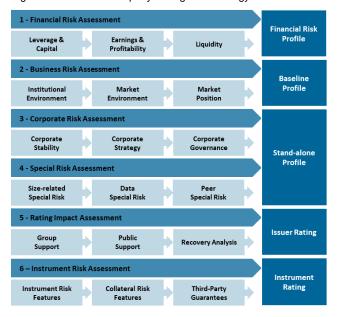
also deviate from the standard weighting of individual risk drivers if considered appropriate.

## 2. Insurance Company Rating Architecture

Figure 1 shows the general framework for private and public sector insurance company credit ratings. The starting point usually is the financial risk assessment (Section 2.1). This is augmented by an analysis of business risks (Section 2.2), corporate risks (Section 2.3) and other entity-specific risks (Section 2.4), resulting in the stand-alone profile (SAP). The SAP reflects the creditworthiness of an insurer independent of extraordinary support or guarantees (Section 2.5). As a next step, any relevant extraordinary group or public support needs to be assessed in order to arrive at the issuer credit profile (separate Guarantee and Extraordinary Support Methodology). The issuer credit profile reflects a company's overall creditworthiness. If no extraordinary support or guarantees apply, the issuer credit profile coincides with the stand-alone profile. In certain cases, recovery considerations are necessary to arrive at the issuer rating and thus at the insurance company's ability to meet its senior unsecured debt obligations in full and on time (Section 2.6). To derive credit ratings for financing instruments with different seniority levels, normally a notching approach is applied that takes into account the specific characteristics of these instruments (Section 2.7).



Figure 1: Insurance Company Rating Methodology



#### 2.1. Financial Risk Assessment

In the financial risk assessment of an insurer, we mainly focus on three areas of analysis: (1) leverage and capital, (2) earnings and profitability, and (3) liquidity. We apply a logit transformation to a number of key financial ratios<sup>1</sup> and aggregate the resulting scores to the financial risk profile. In addition, further key figures are systematically included if they fall below or exceed certain predefined values. The financial risk profile is usually averaged over four years to smooth minor annual fluctuations.

The financial analysis is generally based on the company's audited financial statements. Interim statements and forecasts may be considered for plausibility checks, but are not included in the financial analysis as standard. However, significant deviations from past performance due to a material change in corporate policy or the business environment may lead to a review of the current rating or the rating outlook.

When calculating key figures on the basis of the company's financial statements, systematic adjustments are made

where necessary to increase comparability between different accounting standards and practices.

#### 2.2. Business Risk Assessment

The financial risk profile must be interpreted in the context of the specific economic environment in which an insurance company operates. Therefore, in this section, we analyze the extent to which the institutional environment, the market environment in the insurance industry and the market position of an insurance company influence credit risk. The analysis of these qualitative factors leads to a better comparability of insurance companies' financial profiles across market environments and institutional environments.

The business risk assessment includes the three modules (a) institutional environment, (b) market environment, and (c) market position. In the first two modules a "floor" and a "ceiling" are defined, which serve as lower and upper limits applied to the financial risk profile of the insurer under consideration. For example, if a company operates in an industry environment with particularly high risks, the resulting lower ceiling means that a "Aaa" rating cannot be achieved even with the best financial ratios. At the same time, this compression of the curve of achievable score values affects the entire rating range. Therefore, with moderate or weak financial ratios, a difficult market environment can lead to additional downgrades too, albeit these will be less severe. On the other hand, institutional conditions (e.g. concession obligations, regulatory customer ties, ordinary financing support), particularly in the case of government-related entities (GRE), can mean that the evaluation does not fall below a certain threshold (floor) even if the financial risk profile is very poor. Moreover, this upward shift in the curve of achievable score values can also lead to rating upgrades for issuers with a moderate financial profile, although the upgrades will be smaller. Finally, the assessment of the issuer's market position may lead to a direct up- or down-notching.

<sup>&</sup>lt;sup>1</sup> More information on definitions and details of key financial ratios is provided on <u>e-rating</u>.



#### 2.2.1. Institutional Environment Profile (Floor)

In this module, analysts assess whether certain regulatory provisions or other institutional factors systematically reduce an issuer's credit risk, essentially on the basis of two criteria: (1) intensity of competition; (2) financing system.

Possible criteria to evaluate the intensity of competition are the legal framework determining the scope of business activities (e.g. provision of public goods and infrastructure) or regulatory market entry barriers in terms of administrative authorization requirements. The focus here is really on institutional protection against competition. Economic barriers to market entry leading to lower intensity of competition are assessed within the market position profile in Section 2.2.3. Although insurance companies operating in Switzerland require a license from the Financial Market Authority and must meet regulatory requirements e.g. in terms of capital, competition is healthy in most insurance segments and we do not consider this a supporting credit rating factor, in general.

The central question in the analysis of the financing system is to what extent an insurance company's uncovered costs are financed by regular public subsidies or statutory cost recovery contributions, thereby reducing credit risk. In general, insurance companies in Switzerland do not benefit from direct public subsidies that finance uncovered costs or similar financing mechanisms.

The institutional environment profile can be categorized as "excellent", "very strong", "strong", "favorable", or "standard". For insurance companies in Switzerland, the resulting assessment will be "standard" in most cases.

# 2.2.2. Market Environment Profile (Ceiling)

This module focuses on the market environment of an insurance company, with the two main criteria being (1) country risks and (2) industry sector risks. When analyzing country risks we ask how supportive economic or political conditions are in the countries the issuer operates in and sells its products and services to. To evaluate economic risks, we look at average per capita income in the relevant countries. For the assessment of political conditions, we use country data on

the Worldwide Governance Indicators (WGI) from the World Bank.

The assessment of industry sector risks includes the analysis of cyclicality of the relevant insurance sector due to economic fluctuations, interest rates, or exchange rates and the assessment of growth prospects in respective business areas and geographical markets (e.g. based on consumer preferences). We also consider potential risks due to changing regulatory framework conditions or the vulnerability of a sector to technological disruption (especially digitalization).

The evaluation of the relevant criteria in this module results in an assessment of "favorable", "moderate", "limited", "weak", or "very weak". If the assessment is "favorable", the rating is not changed compared to the financial risk profile. However, if the assessment is less than "favorable", the rating ceiling may be lowered, reflecting that certain risks in the market environment cannot be fully offset by a strong financial profile.

## 2.2.3. Market Position Profile

In this module we analyze the relative competitive position of an insurance company and its resilience to negative shocks compared to competitors. A particularly strong competitive position can lead to more stability of the issuer in the business cycle, whereas a weak competitive position can make a company especially vulnerable in a downturn. We evaluate a insurer's competitive position based on, for example, the exclusivity of corporate marketing or brands, its technology and innovation leadership, or its product and service quality. We also examine factors that increase (or decrease) an issuer's resilience towards certain shocks, e.g. due to financial crises, energy crises or pandemics. Positive or negative resilience factors include the insurer's market share or its efficiency and cost structure. The particular resilience or vulnerability to specific risks such as climate change risks, resource scarcity or reputational risks are also considered in this module.

The evaluation of the relevant criteria in this module results in an assessment of "excellent", "strong", "fair", "limited", or "weak", which in turn is reflected in an up- or downgrade of



the rating of up to two notches. At this stage in the rating process, the financial risk profile including floor and ceiling serves as an anchor. Figure 2 describes how an asymmetric notching approach is applied, based on the level of the anchor. The possible range for down-notching is somewhat higher for investment-grade issuers since we expect strong financial metrics to be reflected to some extent in a corporate's qualitative risk profile. Analogously, the possible range for up-notching is higher for speculative-grade issuers, since we expect weak financial metrics to be reflected in a corporate's qualitative risk profile.

Figure 2: Example of a module notching approach depending on the respective anchor rating

		MARKET POSITION PROFILE				
		excellent	strong	fair	limited	weak
ANCHOR RATING	Aaa – Aa-	1	0	0	-1	- 2
	A+ - Baa-	1	1	0	- 1	-1
	Sub- investment	2	1	0	0	- 1

The resulting stage in the rating process after the financial risk assessment and the business risk assessment is called the baseline profile 1. This serves in turn as the input for the corporate risk assessment.

# 2.3. Corporate Risk Assessment

The previous qualitative analysis emphasizes the issuer's business environment. In the corporate risk assessment, on the other hand, we focus more directly on the issuer and assess company-specific factors that affect credit risk. The three main risk profiles considered are (1) the corporate stability profile, (2) the corporate strategy profile, and (3) the corporate governance profile.

## 2.3.1. Corporate Stability Profile

In this module, we assess the entrepreneurial and financial stability of an issuer. We focus on diversification of business activities and the quality of the issuer's assets and liabilities. Possible criteria to evaluate corporate stability for insurance companies include diversification regarding geographical markets, segments, products and customers as well as the quality of the insurance company's investment portfolio in terms of asset allocation. We also look at concentration in off-balance sheet positions (e.g. granted guarantees) or in specific tangible or intangible balance sheet assets. Finally, we account for diversification of the financing structure, or a lack thereof.

Figure 3 shows how the resulting assessment as "excellent", "strong", "fair", "limited", or "weak" translates into a maximum of two upward or downward notches, based on the baseline profile 1 as the anchor rating. As corporate stability factors are highly relevant for credit risk, the possible notching impact can reach +/-2 even for issuers with an intermediate level of the baseline profile 1.

Figure 3: Notching approach for the corporate stability profile module

		CORPORATE STABILITY PROFILE				
		excellent	strong	fair	limited	weak
ANCHOR RATING	Aaa – Aa-	1	0	0	- 1	- 2
	A+ - Baa-	2	1	0	- 1	- 2
	Sub- investment	2	1	0	0	-1

# 2.3.2. Corporate Strategy Profile

In the corporate strategy profile, we evaluate the impact of an insurance company's strategic focus in various dimensions on credit risk. Possible criteria include the corporate growth strategy including M&A activities, the corporate renumeration policy in terms of bonus incentive structures, or the dividend distribution policy including share buyback



programs and funding thereof. We also assess corporate risk management including the use of derivate instruments and the corporate funding policy in terms of complexity and lending covenants.

Based on the resulting assessment of "excellent", "strong", "fair", "limited", or "weak", an asymmetric notching approach as specified in Figure 2 is applied, based on the baseline profile 1 as the anchor rating.

## 2.3.3. Corporate Governance Profile

The core question of the corporate governance profile is whether the insurer's corporate governance is adequate or whether certain negative aspects may increase the credit risk of an issuer. Possible criteria are board diversity and independence, transparency and reporting standards (financial disclosure and ESG disclosure), or the company's reputation in terms of compliance flaws.

The evaluation of the relevant criteria in this module results in an assessment of "fair", "limited", or "weak". In contrast to the previous modules, we believe that the risks of weak corporate governance affect issuers in different rating classes in a uniform manner. Therefore, the down-notching is independent of the anchor rating (Figure 4).

Figure 4: Example of a notching approach independent of the respective anchor rating

		CORPORATE GOVERNANCE PROFILE				
		fair	limited	weak		
ANCHORRATING	Aaa – Aa-	0	- 1	- 2		
	A+ - Baa-	0	- 1	- 2		
	Sub- investment	0	-1	- 2		

#### 2.4. Corporate Special Risk Assessment

The combined assessment of the issuer's financial risk profile, its business environment and company-specific characteristics is referred to as the baseline profile 2. In rare cases, it may be necessary to add some special modules to the risk assessment. Specific examples are (a) size-related special risks, (b) data and peer special risks, and (c) benchmarking and adjustment.

# 2.4.1. Size-related Special Risk Profile

While the corporate rating methodology has been developed predominantly for medium-sized and large companies, it generally also applies to small and medium-sized enterprises (SME) since business activities and risk profiles frequently exhibit a high degree of similarity.

Some specific risk factors for smaller companies can already be captured by the financial risk, business risk and corporate risk modules mentioned above. Examples include a smaller market share or less diversification. In this module, it is possible to consider additional risk factors due to limited size and/or track record. One possible risk factor is the risk that the company's success depends on a few key persons. Further limitations may arise if a company is particularly small compared to relevant competitors or does not have sufficient know-how in relevant areas. Another aspect to consider may be the company's position in supply chains, including contractual arrangements with key clients.

The evaluation of the relevant criteria in this module leads to an assessment of "fair", "limited", or "weak". Using the baseline profile 2 as a starting point, the resulting down-notching normally is minus one notch if the resulting assessment is "limited" and minus two notches if the resulting assessment is "weak" (Figure 4).

## 2.4.2. Data and Peer Special Risk Profile

This special risk module summarizes potential risks from poor data quality and other special risks. Possible indicators include a limited track record due to newly established or restructured companies, distorted or incorrectly disclosed



corporate data and information, or exceptional data fluctuations due to trend breaks or imbalances. In addition, this module may capture increased credit risk due to violations of national laws and regulations or the occurrence of a risk event (e.g. accidents, reputational damage, called guarantees, lost lawsuits) that was not sufficiently captured by the other modules above.

The assessment of the relevant criteria in this module may be "fair", "limited", or "weak". Starting from the baseline profile 2, the resulting down-notching normally is minus one notch if the resulting assessment is "limited" and minus two notches if the resulting assessment is "weak" (Figure 3).

#### 2.4.3. Benchmarking and Adjustment

In a final step, analysts compare the resulting stand-alone profile with market benchmarks or the credit risk assessment for relevant peers. Although this only applies in exceptional cases, analysts have the option in this module to raise or lower the stand-alone profile by one notch if necessary.

#### 2.5. Stand-Alone Profile and Issuer Credit Profile

Figure 1 shows that the modules described so far lead to the issuer's stand-alone profile (SAP). The SAP reflects the creditworthiness of an insurance company independent of extraordinary support or guarantees. For issuers that might benefit from extraordinary group or public support or guarantees, a separate analysis of the respective features is required. The general principles and guidelines for this analysis can be found in our separate "Guarantee and Extraordinary Support Methodology". After this step, or if this step is not required, the resulting issuer credit profile reflects the overall creditworthiness of an insurance company.

## 2.6. Issuer Rating

To arrive at the issuer rating of an insurer, and thereby its ability to meet senior unsecured debt obligations in full and on time, it is necessary to consider the relative position of these obligations within the entire seniority structure of liabilities. This can be done in a detailed systematic recovery analysis, where analysts estimate the expected loss for each seniority class in the liability structure in the event of a default or similar failure event.2 For insurance companies, two things stand out: First, the average company-wide recovery rate is usually expected to be high, due to the large share of capital investments in total assets. Second, substantial shares of an insurance company's liabilities (e.g. claims of the insured) typically belong to higher seniority classes than senior unsecured debt. These two facts have opposing effects on the creditworthiness of senior unsecured obligations in a standard recovery analysis that often even cancel each other out for liability structures found in practice. Additionally, given that issuer credit profiles of insurance companies are often moderate or strong, we would expect their liability structure to experience significant changes until a default event materializes, implying significant uncertainty as to the actual distribution of seniority classes that would then

Taking all this into account, we normally equate the issuer rating and thus the rating of senior unsecured debt obligations to the issuer credit profile. We only apply a detailed recovery analysis under specific circumstances, e.g. when an insurance company has a low issuer credit profile or when the liability structure differs substantially from the average.

# 2.7. Instrument Risk Assessment

be in place.

Having established the issuer rating of an insurance company, we usually apply a notching approach to derive credit ratings for specific debt instruments. This section first details the characteristics and factors that are considered especially when evaluating subordinated debt, before turning to collateralized debt and instruments benefitting from direct third-party guarantees.

 $<sup>^{\</sup>rm 2}$  See our "Corporate Rating Methodology" for more detailed information.



#### 2.7.1. Instrument Risk Features

Subordinated debt instruments have become more commonly used by insurance companies in recent years. Instruments meeting certain criteria can be attributed to regulatory capital, thus helping insurance companies meet their capital adequacy requirements. Table 1 shows the instrument characteristics we consider and how they translate into a number of downward notches we add to the issuer rating.

Table 1: Standard deductions from the issuer rating or the standalone profile for subordinated insurance company debt instruments

Insurance company debt instruments	Deductions from issuer rating
Senior unsecured debt	0
Subordinated debt o non-regulatory capital o no skipping of interest payments	-1 to -2
Tier 2 debt  o skipping of interest payments (non-cumulative or cumulative)  o write-down or stock conversion at trigger event	-2 to -4
Tier 1 debt  o perpetual o skipping of interest payments (non-cumulative or cumulative) o write-down or stock conversion at trigger event	-3 to -6

Subordinated debt that cannot be attributed to regulatory capital and does not allow skipping of interest payments is usually rated one or two notches below the issuer rating, depending on the amount of lower seniority debt present.

Tier 2 debt has lower seniority than plain subordinated debt and shows specific loss-absorption characteristics. Interest payments may be skipped, with or without the provision to cumulatively make all outstanding amounts upon resumption of coupon payments. Further, if there is a risk of insolvency or the SST-Ratio falls below 100%, the payments of the capital claim and interest payments due must be deferred. Depending on the exact features, we apply deductions of two to four notches to the issuer rating for tier 2 instruments.

In insurance companies with a more complex organizational structure, structural subordination must also be considered. If an insurance company issues debt instruments both at the holding company level and by operating subsidiaries, senior unsecured debt issued by the holding company is often considered junior to senior unsecured debt of the operating subsidiary.

#### 2.7.2. Collateral Risk Features

To assess collateralised financial instruments like covered bonds, the assets underlying the collateralization must be evaluated for each individual case. Based on the characteristics of the underlying assets, a haircut is applied to the value of the assets. Using these adjusted values, the overcollateralization is calculated, which is an important information for the evaluation of the specific financial instrument.

## 2.7.3. Third-Party Guarantees

If a debt instrument benefits from an explicit and direct thirdparty guarantee, it is not always necessary to determine an issuer rating for the respective insurance company and apply an instrument-specific notching. Instead, the first step in this case would be to determine the anchor rating for the guarantee, where we use the credit ratings of the guarantors as a starting point.<sup>3</sup> If several guarantors are present or per quota guarantees apply, we typically calculate the weighted average of the individual credit ratings. However, it is also possible that we consider the credit rating of only one

Tier 1 debt is placed right above common equity in an insurance company's seniority structure of liabilities, thus being designed to absorb losses before tier 2 debt. Tier 1 debt instruments have no fixed maturity, allow for interest payment skipping and are written off or converted into stock as the SST-Ratio falls below 80% or at the time of imminent over-indebtedness, as well as in the event of withdrawal of the license. Depending on the specific characteristics of an instrument, analysts usually rate tier 1 debt three to six notches below the issuer rating.

 $<sup>^{3}</sup>$  If fedafin does not assign its own credit rating for a guarantor or support provider, the credit ratings of other recognized credit rating agencies can also be used. Such use will be disclosed on the respective credit rating documentation.



guarantor as the relevant measure. It might be necessary to adjust the anchor rating calculated by several notches. For instance, if an expected guarantee payment is so high as to become detrimental to the guarantor's own creditworthiness, we can make a deduction of one or more notches. Similarly, if we view near-term changes in the pool of guarantors or of their credit ratings as probable, we might incorporate a corresponding adjustment in the anchor as well.

The evaluation of guarantees is then based on two criteria: (1) the extent of the risk transfer between the issuer and the guarantor and (2) their timeliness and enforceability.

The extent of the risk transfer can be judged "integral", "strong", or "limited". If guarantees cover the entire obligations arising from the financial instrument, the corresponding risk transfer is normally considered "integral". In the case of limited guarantees with a binding cap, analysts would likely judge the resulting risk transfer as weaker.

The timeliness and enforceability of a guarantee is categorized as "integral", "strong", or "limited", depending on how well the following criteria are met: whether the guarantee is direct or subsidiary; if legal enforceability is unproblematic or limited; if payments are timely or delayed; and how easily the guarantee can be terminated or substantially altered.

Figure 5 shows how the two criteria are combined to determine the guarantee risk profile. This can take one of five assessments: "excellent", "strong", "fair", "limited", or "weak".

Figure 5: Guarantee assessment

GUARANTEE RISK MITIGATION ASSESSMENT						
	integral risk transfer	strong risk transfer	limited risk transfer			
integral enforceability	excellent	strong	fair			
strong enforceability	strong	fair	limited			
limited enforceability	fair	limited	weak			

The qualification of the guarantee risk profile then translates into a specified number of negative notches that are applied to the anchor rating (see Figure 6). If the guarantee risk profile is considered "excellent", the issuer credit profile is aligned with the anchor rating. For qualifications ranging from "strong" to "weak", between one and four notches can be deducted from the anchor rating.

Figure 6: Notching framework for explicit guarantees

	GUARANTEE RISK PROFILE					
	excellent	strong	fair	limited	weak	
Notches subtracted from anchor	0	-1	-2	-3	-4	

#### 3. Rating Outlook

For capital market issuers in particular, an outlook can be assigned to the rating. The outlook ("positive", "stable", "negative") reflects fedafin's assessment of the medium-term rating development.

The rating outlook does not represent a specific probability of a rating change, but provides an indication on the likely direction of a potential rating change. The outlook covers a period of 12 to 18 months following the rating outlook assignment.

# 4. ESG Factors Material to Credit Rating

Fedafin acknowledges the fundamental importance of ESG criteria for an issuer's business performance. ESG related variations in consumer behavior, technologies and regulatory environments as well as considerations regarding good corporate governance already materialize in rating assignments and have done so in the past. The credit rating model outlined above contains several criteria related to ESG. While the characteristics of corporate governance are evaluated in a separate module, environmental and social factors can affect the credit rating in a number of different modules. For instance, if an insurance company has a large insurance exposure to geographic regions that are threatened



by climate risks, analysts might see negative pressure on the quality of diversification within the corporate stability module.

Within social factors, cyber risk poses a significant challenge. The need for privacy and data security of insurance customers could be threatened by a cyber attack. Such an incident may lay open flaws in an insurance company's risk management, which is evaluated within the corporate strategy module. These examples emphasize that ESG factors can impact a credit rating in various ways.

As an independent credit rating agency operating at the nexus of investors and capital seekers, we feel an obligation to be transparent about our approach to credit relevant ESG factors, which is why we signed PRI's "Statement on ESG in credit risk and ratings" in August 2018. PRI is an investor initiative in partnership with the United Nations Environment Programme Finance Initiative and the United Nations Global Compact, dedicated to highlight the investment implications of ESG factors and to help investors integrate these factors into their investment decisions. By signing the statement, we share a common vision to improve the systematic and transparent consideration of ESG factors in credit ratings.

Any material influence of ESG factors on the credit risk of an issuer is therefore disclosed in our credit rating reports. In longer reports we include a separate block that lists the relevant ESG factors and states whether their respective impact on the credit rating is positive or negative. However, it is important to understand that in making this influence transparent, we do not issue a moral statement or an ideological endorsement of a specific activity. We merely show how the probability of default of an issuer or the associated expected loss of a financial instrument are affected by ESG factors.



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