Best's Capital Adequacy Ratio Model

Life, US

Evaluate life insurers' capitalization and risk profile to capture the combined impact of financial risks associated with adverse market conditions.

Unlike company-created models, the *Best's Capital Adequacy Ratio (BCAR) Model* is consistent with the methodology used by AM Best analysts to evaluate the balance sheet strength of life companies filing US statutory statements. Subscribers can easily use the BCAR Model with the latest criteria and pre-loaded statutory data relevant to their modeling and analysis.

The *BCAR Model* is an ideal tool for US life insurers, reinsurers, brokerage firms, consultants, actuarial firms, asset management companies and other intermediaries with a sophisticated level of familiarity with insurance company operations and capital models.

If you're outsourcing your capital analysis to a consulting firm, the optimal way to ensure their calculations are based on current, accurate information is to confirm that they're using the *BCAR Model* as an assessment tool.

- Use this model in planning for your organization's capital needs and to help manage regulatory capital needs.
- Determine if an insurer's capitalization is appropriate to support various types of risk simultaneously at five different Value at Risk (VaR) levels.
- Find out how different risks impact the balance sheet.
- Create projections and test the impact of different scenarios, including reinsurance programs, asset valuations, business line diversification, losses and asset allocations.
- Run multiple adjustments to any insurer's balance sheet. Change parameters and capital charges at each VaR and generate insightful reports.
- Access preloaded statutory data and run new base scores for all Life, US insurers.

What is Best's Capital Adequacy Ratio (BCAR)?

BCAR depicts the quantitative relationship between an insurer's balance sheet strength and its operating risks. Calculating an insurer's BCAR score requires calculating its net required capital—namely, the capital needed to support the financial risks associated with the exposure of its assets and underwriting to adverse economic and market conditions—and determining its capital available to support these risks.

$$\text{The basic formula for BCAR is } \left(\frac{\text{Available Capital} - \text{Net Required Capital}}{\text{Available Capital}}\right) \times 100$$

The BCAR model calculates an insurer's net required capital at five different confidence levels, resulting in a BCAR score for each of these levels. Since the difference between a company's available capital and its net required capital is expressed as a ratio to available capital, a BCAR score expresses the extent of the excess or shortfall as a percentage of available capital. A positive score at a particular confidence interval indicates that available capital is in excess of net required capital, whereas a negative score indicates that available capital has fallen short of net required capital.

Visit www3.ambest.com/ambv/ratingmethodology to read a full explanation of the BCAR calculation for Life insurers filing US statutory statements.

A company's BCAR score is one component in evaluating the balance sheet strength during the overall rating process. In addition to calculating risk exposure based on current data, AM Best analysts use the model to test risk assumptions and run stress-test scenarios that project the impact of the company's potential financial performance outcomes.

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How are the BCAR scores interpreted?

BCAR scores are calculated at five VaR confidence levels: 95.0%, 99.0%, 99.5%, 99.6% and 99.8%. The following table displays the interpretation of the scores published by AM Best.

VaR Confidence Level (%)	BCAR	BCAR Assessment
99.6	> 25 at 99.6	Strongest
99.6	> 10 at 99.6 & ≤ 25 at 99.6	Very Strong
99.5	> 0 at 99.5 & ≤ 10 at 99.6	Strong
99	> 0 at 99 & ≤ 0 at 99.5	Adequate
95	> 0 at 95 & ≤ 0 at 99	Weak
95	≤ 0 at 95	Very Weak

AM Best calculates required capital at the 99.8th percentile to facilitate discussion of tail risk during the evaluation of enterprise risk management within the rating process.

What is the advantage of the different VaR confidence levels in the BCAR model?

The ability to formulate BCAR scores at different confidence levels allows the user to gain insight into a company's ability to withstand low-probability events. For example, if a company's management wants to hold enough capital to be confident that it can cover 95% of all potential outcomes, it needs to find the value on the probability distribution such that 95% of all potential outcomes are less than or equal to that value. In the following example, the size of loss where this occurs is at 23% of net premiums written (NPW).

As shown in the chart below, if the NPW amount is $100,000, then the VaR 95 value in dollars is $23,000 (23% of $100,000).

Statement Amount	VaR Confidence Level (%)	Capital Factor	Loss Amount at VaR Confidence Level (Statement Amount * Capital Factor)	Exceedance Probability* (100% - VaR Confidence Level)
100,000	95	0.23	23,000	5.0
	99	0.30	30,000	1.0
	99.5	0.34	34,000	0.5
	99.6	0.35	35,000	0.4

*Probability that an actual observed loss will exceed the loss amount of the confidence level.

This means that 95% of all potential outcomes will be less than $23,000 and that there is only a 5% chance that an underwriting loss of more than $23,000 could occur, and therefore a 5% chance of insolvency (provided that the initial amount of available capital carried was at least $23,000). If management wanted to be more conservative than a 5% chance of insolvency, then a confidence level of 99% could be chosen to set a target capital level.

What risk components are included in the analysis of net required capital in the *BCAR Model* product?

The US life BCAR model computes the amount of capital required to support four broad risk categories: investment risk, underwriting risk, interest-rate/VA market risk, and business risk. These four broad risk categories are further subdivided into six separately analyzed risk components:

- C1-Non Eq Fixed Income Securities
- C1-Eq Equity Securities
- C2 Mortality/Morbidity
- C3-Int Interest Rate
- C3-MKT VA Market
- C4 Business

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What are the components of available capital?
The starting point for available capital is the financial statement of the entity or entities being evaluated. An insurer's available capital is determined by making a series of adjustments to the capital (surplus) reported in its financial statements. Available capital may be further adjusted for other items, as shown below.

- Reported Capital (Surplus)
- Equity Adjustments
  - Asset Valuation Reserves
  - Unearned Premiums
  - Dividends Payable
- Debt Adjustments
  - Surplus Notes
- Other Adjustments
  - Future Operating Losses
  - IMR Amort. Following Year
  - Off-Balance Sheet Derivatives
  - Intangibles
  - Goodwill

Can I analyze GAAP data with the *BCAR Model – Life, US*?
No. GAAP data can be analyzed using the *Best's Capital Adequacy Ratio Model - Global* product. Contact your Account Manager for details.

What data years are available?
Currently, 2025 and 2024 are available.

What is included with my subscription to *BCAR Model - L/H, US*?

- An online application that gives you access to a capital model consistent with the methodology used by AM Best analysts for US Life statutory data
- The ability to make adjustments and projections for the available capital components and risk factors at each confidence level
- Access to the BCAR Models with the latest criteria and pre-loaded statutory data relevant for modeling and analysis.

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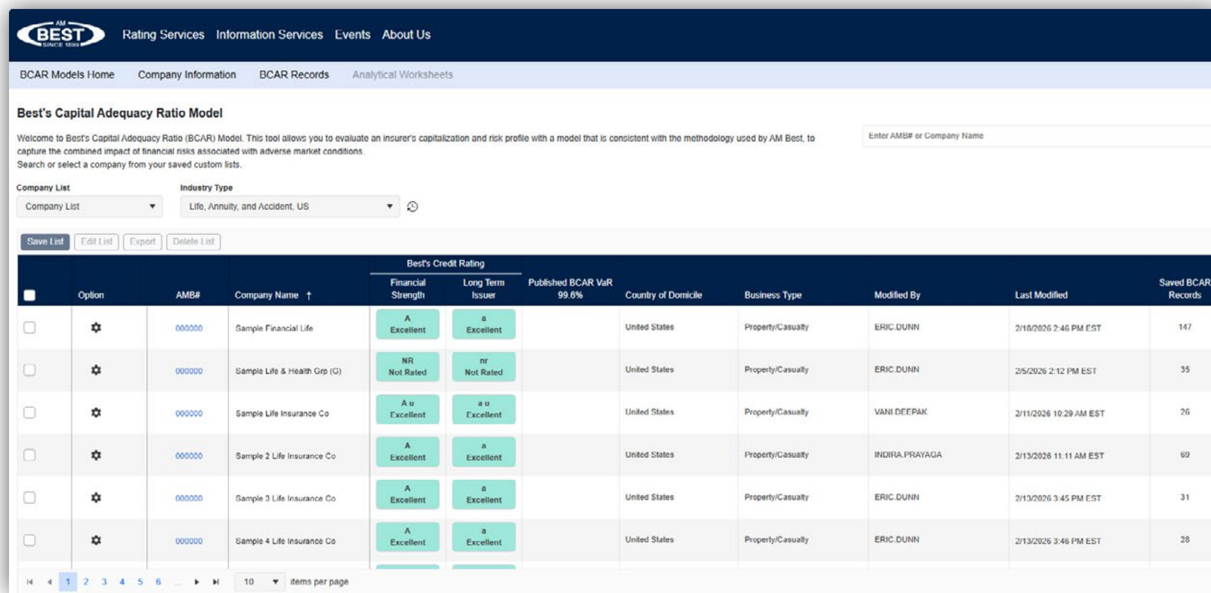
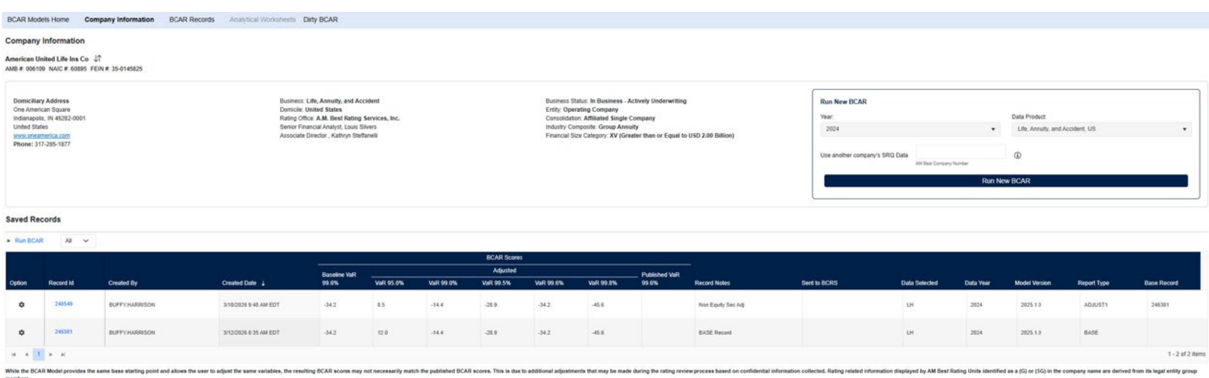
Features of the Online Platform and Functionality

Best's Capital Adequacy Ratio Model - L/H, US is available in an all-new online platform that uses next-generation software for your capital modelling needs. With this new platform, you can:

- Easily navigate a user-friendly interface that provides a concise and modernized overview of company information.





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- Clearly see the impact of your adjustments compared to the base scores at each VaR level.

BCAR Record

Model Version: 2025.1.0 **Selected BCAR Year:** 2024 **Data As Of:** 31 Dec 2024 **Model Type:** Life, Annuity, and Accident, US

BCAR Scores %	Baseline		Adjusted
VaR 95.0	12.0		8.5
VaR 99.0	-14.4		-14.4
VaR 99.5	-28.9		-28.9
VaR 99.6	-34.2		-34.2
VaR 99.8	-45.6		-45.6

Your purchase includes the Group License Management Tool, allowing you to manage users and license seats under a shared registration number for multi-user or unlimited purchases.

To request a demonstration of the *BCAR Model – L/H, US*, or for questions or pricing information, please contact your AM Best Account Manager or Business Development at (908) 439-2200, option 5, or sales@ambest.com.

The results or output created by use of the *Best's Capital Adequacy Ratio Model – L/H, US* ("Output") is for informational and internal purposes only, and such Output may not match or be consistent with the official BCAR scores that AM Best publishes for the same rating unit. The Output is not guaranteed or warranted in any respect by AM Best. *Best's Capital Adequacy Ratio Model – L/H, US* is a non-rating service product, and its purchase is not required as part of the rating process.

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