

BCAR for Life and Health Insurers – Model Update 2006

The objective of A.M. Best Co.'s financial strength rating system is to provide an opinion of an insurer's financial strength and ability to meet its ongoing obligations to policyholders. The assignment of an interactive rating is derived from an in-depth evaluation of a company's balance-sheet strength, operating performance and business profile, as compared with A.M. Best's quantitative and qualitative standards.

In determining a company's ability to meet its current and ongoing obligations to policyholders, the most important area to evaluate is its balance-sheet strength, since it is the foundation for policyholder security. Balance-sheet strength measures the exposure of a company's surplus to its operating and financial practices. Business profile and operating performance then determine how that balance-sheet strength will be enhanced, maintained or eroded over time.

One of the key tools used in evaluating balance-sheet strength is Best's Capital Adequacy Ratio (BCAR) model, which provides a quantitative measure of the risks inherent in a company's investment and insurance profile relative to its statutory capital and surplus. A.M. Best notes that although BCAR is a valuable tool in the rating process, it is not the sole determinant of a rating assignment. BCAR, like other quantitative measures, has its limitations and requires a qualitative overlay. Consequently, capital adequacy should be viewed within the overall context of the operating and strategic issues surrounding a company.

Business profile and operating performance, as well as the quality of the capital that supports the BCAR results, are important rating considerations in evaluating a company's

long-term financial strength and viability. In addition, any holding company considerations also will play a key role in evaluating the financial strength of an insurance company.

Model Update

A.M. Best has modified its BCAR model for life and health insurers effective for year-end 2006 to enhance its accuracy in measuring balance sheet and operating risk. A.M. Best's BCAR model will continue to quantify the level of capital required for four broad risk categories: asset risk, insurance/morbidity risk, interest rate risk and business risk. Changes to the model will be discussed for each of the four categories.

C-1: Asset Risk

A.M. Best performed a thorough review of the asset risk factors in the BCAR model. Based on industry data, the following changes were made to default risk factors:

Asset Type	Prior Factor	New Factor
Preferred Stock - Class 1	0.030	0.010
Other Pref. Stock (Sch. BA) - Class 1	0.045	0.015

In contrast to the NAIC's risk-based capital formula, A.M. Best's factors for preferred stock are higher than those for bonds. Although, in practice, investors expect preferred stock to perform like fixed-income securities with relatively stable valuations, A.M. Best believes the higher factors better reflect preferred stock's deep subordination and, therefore, higher expected loss. Also, for BCAR purposes, A.M. Best will treat hybrid securities like preferred stock. However, A.M. Best will not notch hybrids down by one class, applying instead the factor assigned to their current Securities Valuation Office (SVO) ratings.

With regard to reinsurance, A.M. Best has increased the charges covering counterparty credit risks inherent in reinsurance agreements to 0.8% (.008) from 0.5% (.005). The average credit quality of reinsurers has been determined by A.M. Best to approximate that of Class 1

Questions regarding A.M. Best's BCAR methodology for life/health insurers can be directed to George Hansen, managing senior financial analyst/actuary, or Andrew Edelsberg, assistant vice president, both in the life/health division.



bonds, which are currently assessed a C-1 risk charge of 0.8%. Credits against such risks for reinsurance to unauthorized reinsurers will remain at 0.5% when the direct writer retains assets, as in funds-withheld or modified co-insurance arrangements. The credit is subject to adjustment by the analyst following a review of the company's largest exposures to unauthorized reinsurers. A.M. Best now requests additional information in its Supplemental Rating Questionnaire (SRQ) to aid analysts in assessing concentration risk and counterparty risk for a company's largest exposures. The changes in the reinsurance factors are illustrated below:

Description	Prior Factor	New Factor
Recoverable — Paid Losses	0.005	0.008
Recoverable — Unpaid Losses	0.005	0.008
Unearned Premium Reserve Ceded	0.005	0.008
A&H Reserve Ceded	0.005	0.008
Life and Annuity Reserve Ceded	0.005	0.008
Reinsurance in Unauthorized Cos.	(0.005)	(0.005)
Funds Withheld With Unauthorized Reins.	(0.005)	(0.005)

A.M. Best also will apply a charge of 0.8% to assets held by companies for corporate-owned life insurance (COLI) policies. The charge is the same as that for Class 1 bonds and reflects the generally high credit quality of the insurance carriers backing the policies. Higher charges may be applied, depending on the credit quality of the counterparties involved.

Finally, the BCAR model assesses additional asset risk charges based on the relative size of an insurer's investable portfolio. This "spread-of-risk" (SOR) factor is applied on a sliding scale, reflecting A.M. Best's view that larger organizations can diversify risks across a broader range of asset classes and issuers. The 2006 BCAR model will continue to utilize the SOR factor; however, it will be applied only to bonds, preferred stock and mortgages and no longer will include real estate and common stock. A.M. Best believes that the current BCAR factors applied to real estate and common stock are adequate to cover the risks associated with these asset classes. The basis for determining the SOR factor — total invested assets — remains the same.

C-2: Mortality and Morbidity (Insurance) Risk

Beginning Jan. 1, 2006, prescription drug coverage was made available under Medicare Part D. The 2006 BCAR model has the following two-tiered risk charges applied to

Medicare Part D premium:

Basis	Risk Charge
First \$50 million in earned premium	0.11
Premium in excess of \$50 million (threshold)	0.07

A.M. Best notes that the factors above are comparable to the risk charges applied to Medicare Supplement business (0.12 and 0.07, respectively). These factors will be reviewed as experience evolves under the new program.

The factors applied to stop-loss business also were modified, reflecting the importance of scale in this segment. The prior BCAR model applied a flat 30% charge to premiums. The charges in the 2006 model are tiered as follows:

Basis	Risk Charge
First \$100 million in earned premium	0.30
Premium in excess of \$100 million (threshold)	0.25

A.M. Best Co.

Methodology

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The BCAR model includes a credit (i.e. a reduction in the overall premium risk charge) for companies with managed care arrangements that reduce uncertainty regarding future claim payments. This credit is reduced for the risk that the managed care organization (MCO) will pay the capitation to a provider but not receive the agreed-upon services and will encounter unexpected expenses in arranging for alternative coverage. Prior to 2006, the credit risk charge was 5% of all capitation payments. For the 2006 model, the credit risk charge is based on the contractual relationship between the MCO and a provider. The credit risk charge is 4% of all capitation payments made to unaffiliated or third-party care providers and 2% of capitation payments made to affiliated care providers. In the case of capitation arrangements backed by letters of credit or funds-withheld treaties, analysts will review such arrangements to determine any credit risk reductions.

There were no changes made to the mortality risk factors in the BCAR model.

C-3: Interest Rate/Market Risk

The 2006 BCAR model incorporates a single set of risk factors that apply to both individual and group annuities. This is based on A.M. Best's belief that inconsistencies exist in statutory reporting practices for individual and group annuities. Also, the 2006 BCAR model no longer applies additional risk charges to annuities based on the distribution channel through which the product was sold. The business mix issues will be incorporated into A.M. Best's qualitative evaluation. Risk factors will continue to vary by the remaining surrender charge and market value adjustment protection periods.

A.M. Best has reviewed interest rate risk factors applied to other types of annuities and life insurance business, and has implemented the following changes:

- The risk factor applied to structured settlements was increased to 0.0175 from 0.015. The higher charge reflects the magnitude of asset/liability mismatches typical of structured settlement business because of its long-tailed liabilities.

- The risk factor applied to interest-sensitive life insurance reserves was reduced to 0.50% from 0.75%, consistent with non-interest-sensitive life business. A.M. Best believes that there is little difference in overall risk to

justify dissimilar charges.

Exhibit 1 (on page 5) summarizes the changes in the interest rate risk factors in the 2006 BCAR model.

The NAIC has developed new capital requirements for the market risks present in variable annuity contracts with guaranteed death benefits and living benefits. The process, known as C-3 Phase II, produces required capital amounts that vary by company based on results from stochastic models. For BCAR model purposes, A.M. Best will assess an additional charge that will be added to the company's reported C-3 Phase II results. Beginning in 2006, information to determine the additional charge will be requested in the SRQ.

The charge will be determined by applying charges to separate account assets backing contracts subject to the C-3 Phase II requirements. The charge will vary for each of three risk profiles to be determined by analysts:

Risk Category	Current Factor	Maximum Factor
Low	0.0010	0.0020
Medium	0.0025	0.0045
High	0.0050	0.0080

The current factors reflect favorable market conditions that have existed for the past few years, as evidenced by relatively low volatility coupled with stable economic forces. A.M. Best believes that during periods of increased volatility and unstable economic conditions, higher capital charges will be warranted, and the maximum factors shown above may be more appropriate. During these periods, risk-mitigation programs developed during favorable market conditions may be subject to unknown challenges.

Key items that analysts will use to determine the risk profile will include results at the extreme tails (i.e. conditional tail expectations 98 and higher), risk-mitigation tools employed (reinsurance and/or hedging), the nature of the product guarantees offered by the company and the distribution of funds backing the variable annuity contracts (equity funds vs. bond funds, etc.). Information of this nature should be available in the actuarial opinion and memorandums supporting the C-3 Phase II results. If A.M. Best is unable to determine the risk profile because of a lack of information, the maximum risk charge may apply.

C-4: Business Risk

The 2006 BCAR model will exclude variable annuity and life premiums from the 2% business risk charge. Data from the SRQ will be used along with Annual Statement information (Schedule T) to determine direct premiums, net of variable premiums, as the basis for this charge. A.M. Best has employed this approach because policyholders bear most of the risk for variable products without secondary guarantees. Risks of variable annuity guaranteed death benefits and living benefits borne by the insurance companies now are accounted for in the C-3 section of the BCAR model via the aforementioned C-3 Phase II requirements.

Additionally, the previous BCAR model applied charges to separate account assets based on a sliding scale. The charge started at 1% of such assets and graded to 0.75% for companies with separate account assets in excess of \$10 billion. Since market risks associated with variable annuity guarantees now are accounted for in the C-3 section, the risk charge in the 2006 BCAR model applicable to separate account assets was reduced to a flat 0.2% (20 basis points). A.M. Best believes there are business risks associated with separate accounts because of the increased complexity of products being offered, ongoing suitability issues and administrative challenges associated with separate account businesses.

Surplus Notes

The BCAR model initially deducts all surplus notes from capital and surplus. A.M. Best believes that surplus notes exhibit equity-like features, and therefore, equity credit should be given if such features are present. Effective for year-end 2006, the maximum equity credit given for surplus notes is 90% for third-party (externally held) notes and 95% for notes held by affiliates. Maximum equity credit will be allowed for the period up to 10 years prior to the notes' stated maturity. Equity credit thereafter will be reduced 10% per year (i.e. on a straight-line basis) until the notes mature. A.M. Best believes that as surplus notes approach maturity, they become more debt-like, thus warranting reduced equity credit.

Conclusion

The above changes are intended to more accurately reflect the risks present in today's environment. A.M. Best will continue to closely monitor industry experience, product trends and regulatory changes impacting the level of capital required to support life and health insurance company operations.

[Learn More](#)



Understanding BCAR for Life and Health Insurers –
Feb. 9, 2004

Exhibit 1

C-3: Interest Rate Risk Factors

	Prior BCAR Factor	2006 BCAR Factor
GENERAL ACCOUNT (G/A) ANNUITIES		
<u>Not Subject to Discretionary Withdrawal:</u>		
G/A Indiv. Ann. Excl Structured Settlements	0.0075	0.0075
Structured Settlements	0.0150	0.0175
G/A Guar. Inv, Exper. Rtd & Index Grp Pens	0.0150	0.0150
All Other General Account Group	0.0150	0.0150
Gen Acct. Liabilities Maturing in 2007	0.0100	0.0100
SEPARATE ACCOUNT (S/A) ANNUITIES (with interest rate guarantees)		
<u>Not Subject to Discretionary Withdrawal:</u>		
Individual Annuities	0.0050	0.0075
Group Annuities	0.0150	0.0075
G/A and S/A ANNUITIES (with interest rate guarantees)		
<u>Subject to Discretionary W/D with MVA:</u>		
Individual Annuities		
MVA Contract Expires During 2007	0.0150	0.0165
MVA Contract Expires During 2008	0.0085	0.0100
MVA Contract Expires During 2009	0.0070	0.0085
MVA Contract Expires After 2009	0.0060	0.0075
Group Annuities		
MVA Contract Expires During 2007	0.0200	0.0165
MVA Contract Expires During 2008	0.0090	0.0100
MVA Contract Expires During 2009	0.0075	0.0085
MVA Contract Expires After 2009	0.0065	0.0075
<u>Subject to Discretionary W/D with Surr. Chrgs > 1%:</u>		
Individual Annuities		
Surrender Charges Expire During 2007	0.0220	0.0235
Surrender Charges Expire During 2008	0.0160	0.0175
Surrender Charges Expire During 2009	0.0145	0.0160
Surrender Charges Expire After 2009	0.0135	0.0150
Group Annuities		
Surrender Charges Expire During 2007	0.0270	0.0235
Surrender Charges Expire During 2008	0.0190	0.0175
Surrender Charges Expire During 2009	0.0150	0.0160
Surrender Charges Expire After 2009	0.0140	0.0150
<u>Subject to Discretionary W/D with NO Surr. Chrgs:</u>		
Individual Annuities	0.0300	0.0300
Group Annuities	0.0350	0.0300
LIFE INSURANCE RESERVES (net of policy loans):		
Non-Interest Sensitive Reserves	0.0050	0.0050
Interest Sensitive Reserves	0.0075	0.0050

GUIDE TO BEST'S CREDIT RATINGS

A Best's Credit Rating is an independent opinion based on a comprehensive quantitative and qualitative evaluation of a company's balance sheet strength, operating performance and business profile and, where appropriate, the specific nature and details of a rated debt security. Best's Credit Ratings are not a warranty of a company's ability to meet its ongoing financial obligations.

Financial Strength Ratings

A **Best's Financial Strength Rating (FSR)** is an opinion as to an insurer's financial strength and ability to meet its ongoing obligations to policyholders.

	Rating	Descriptor
Secure	A++, A+	Superior
	A, A-	Excellent
	B++, B+	Good
Vulnerable	B, B-	Fair
	C++, C+	Marginal
	C, C-	Weak
	D	Poor
	E	Under Regulatory Supervision
	F	In Liquidation
	S	Suspended

A **Best's Long-Term Issuer Credit Rating (ICR)** is an opinion as to the ability of the issuer to meet its ongoing senior financial obligations. A.M. Best also assigns Issuer Credit Ratings to insurance companies using its Long-Term Credit Rating Scale. The definitions applied to insurance companies that are assigned a long-term Issuer Credit Rating are as follows: (aaa) - Exceptional; (aa) - Superior; (a) - Excellent; (bbb) - Good; (bb) - Fair; (b) - Marginal; (ccc and cc) - Weak; (c) - Poor; (rs) - Regulatory Supervision/Liquidation. The (nr) designation may be assigned to insurers that were previously rated.

A.M. Best may also assign Short-Term Issuer Credit Ratings to certain insurance companies using its Short-Term Credit Rating scale.

Rating Modifiers		Affiliation Codes	
"u"	Under Review	"g"	Group
"pd"	Public Data	"p"	Pooled
"s"	Syndicate	"r"	Reinsured

Not Rated Categories (NR)

NR-1	Insufficient Data
NR-2	Insufficient Size and/or Operating Experience
NR-3	Rating Procedure Inapplicable
NR-4	Company Request
NR-5	Not Formally Followed

Long-Term Issuer Credit, Bank Deposit and Debt Ratings

A.M. Best uses its long-term credit rating scale when assigning:

- **Debt Ratings** (an opinion as to the issuer's ability to meet its financial obligations to security holders when due);
- **Issuer Credit Ratings** (an opinion as to the ability of the issuer to meet its ongoing senior financial obligations) and
- **Bank Deposit Ratings** (an opinion as to a bank's ability to meet its ongoing obligations to depositors).

	Rating	Descriptor
Investment Grade	aaa	Exceptional
	aa	Very Strong
	a	Strong
	bbb	Adequate
Non-Investment Grade	bb	Speculative
	b	Very Speculative
	ccc, cc, c	Extremely Speculative
	d	In Default

Ratings from "aa" to "ccc" may be enhanced with a "+" (plus) or "-" (minus) to indicate whether credit quality is near the top or bottom of a category, and a "u" modifier for Under Review.

Ratings prefixed with an ("i") denote indicative ratings. Issuer Credit Ratings may also be assigned a "pd" modifier, which indicates that a company does not subscribe to A. M. Best's interactive rating process. A.M. Best may also assign the "rs" designation, which indicates that a company is under regulatory supervision or liquidation.

Short-Term Issuer Credit and Debt Ratings

A.M. Best uses its short-term credit rating scale when assigning:

- **Debt Ratings** (an opinion as to the issuer's ability to meet its obligations having maturities generally less than one year) and
- **Issuer Credit Ratings** (an opinion as to the ability of the issuer to meet its senior financial commitments on obligations maturing in generally less than one year).

	Rating	Descriptor
Investment Grade	AMB-1+	Strongest
	AMB-1	Outstanding
	AMB-2	Satisfactory
	AMB-3	Adequate
Non-Investment Grade	AMB-4	Speculative
	d	In Default

A company's Short-Term Credit Rating also may be assigned an Under Review modifier ("u") that generally is event-driven (positive, negative or developing) and indicates that the company's Best's Rating opinion is under review and may be subject to near-term change. Ratings prefixed with an ("i") denote indicative ratings.

Not Rated (nr)

The nr designation may be assigned to issuers or issues that were previously rated.

Rating Outlook

Best's Credit Ratings (A++ to D, aaa to c) are assigned a Rating Outlook that indicates the potential direction of a company's/issue's rating for an intermediate period, generally defined as the next 12 to 36 months. A.M. Best does not assign Public Data Ratings to Debt Issues and Financial Strength, Issuer Credit and Bank Deposit Public Data Ratings are not assigned an Outlook. Rating Outlooks are as follows:

Positive	Indicates a company's financial/market trends are favorable, relative to its current rating level, and if continued, the company has a good possibility of having its rating upgraded.
Negative	Indicates a company is experiencing unfavorable financial/market trends, relative to its current rating level, and if continued, the company has a good possibility of having its rating downgraded.
Stable	Indicates a company is experiencing stable financial/market trends and that there is a low likelihood that its rating will change in the near term.



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