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Understanding BCAR for Canadian Property/Casualty Insurers

The objective of A.M. Best's financial strength ratings is to provide an opinion of an insurer's financial strength and ability to meet 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.

Balance Sheet Strength

In determining a company's ability to meet its current and ongoing obligations to policyholders, the most important area to evaluate is balance sheet strength, since it is the foundation for policyholder security. Performance then determines how that balance sheet strength will be enhanced, maintained or eroded over time. Balance sheet strength measures the exposure of a company's surplus to its operating and financial practices. An analysis of a company's underwriting, financial and asset leverage is very important in assessing its overall balance sheet strength.

Underwriting leverage is generated from current premium writings, reinsurance recoverables and loss reserves. In order to assess whether a company's underwriting leverage is prudent, a number of factors unique to the company are taken into account, including type of business written, quality and appropriateness of its reinsurance program, and adequacy of loss reserves.

Financial leverage is created through debt or debt-like instruments (including financial reinsurance) and is reviewed in conjunction with a company's underwriting leverage. An analysis of financial leverage is conducted at both the operating company and holding company levels, since debt at either level could place a call on the insurer's earnings and strain its cash flow, leading to financial instability.

Asset leverage measures the exposure of a company's surplus to investment, interest rate and credit risks. The volatility and credit quality of the investment portfolio, recoverables and agents' balances determine their potential impact on the company's balance sheet strength.

A company's underwriting, financial and asset leverage also are subjected to an evaluation by Best's Capital Adequacy Ratio (BCAR), which allows for an integrated review of these leverage areas. BCAR calculates the net required capital to support the financial risks of the company associated with the exposure of assets and underwriting to adverse economic and market conditions, and compares it with economic capital.

Some of the stress tests within BCAR include above-normal catastrophes, a decline in equity markets and a rise in interest rates. This integrated stress evaluation permits a more discerning view of a company's balance sheet strength relative to its operating risks.

A company's BCAR result is extremely useful in evaluating its balance sheet strength, but BCAR is only one component of that analysis. In addition, balance sheet strength is only one component of the overall financial strength rating, which also includes operating performance and business profile. BCAR establishes a guideline for risk-adjusted capital to support a rating, but other factors driving expectations of future balance sheet strength drive the rating as well. All of these factors are important to the overall rating process.

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Overview of BCAR

Structurally, A.M. Best's Canadian BCAR model is adapted specifically to the Canadian Annual Return and Supplement, as well as Canada's accounting standards. For Canadian Annual Returns and Supplements, BCAR calculations are performed using data from the consolidated exhibits. Effectively, this creates stand-alone BCARs for subsidiary companies, but consolidated BCARs for parent companies. However, if it is determined that the parent company may be the cause of the weaker consolidated BCAR, then a stand-alone BCAR for the parent-only insurer can be created using additional information supplied by the parent company.

A.M. Best's Canadian capital formula takes a risk-based capital approach. Net required capital is calculated to support three broad risk categories: investment risk, credit risk and underwriting risk. However, A.M. Best's capital adequacy formula contains an adjustment for covariance, reflecting the assumed statistical independence of the individual components.

A company's adjusted surplus is divided by its net required capital, after the covariance adjustment, to determine its BCAR.

In contrast to the minimum capital test (MCT) calculation, a significant proportion of capital is required to support future premium risk, reflecting A.M. Best's view that balance sheet strength must support the risks associated with a company's current book of business as well as those it plans to insure in the upcoming year.

Investment Risk

Investment risk includes three main risk components: fixed-income securities, equities and interest rate. Capital charges are applied to different asset classes based on the risk of default, illiquidity and market-value declines in both equity and fixed-income securities. A.M. Best's Canadian model has incorporated an interest-rate risk component that considers the market-value decline in a company's fixed-income portfolio as a result of rising interest rates. Additionally, higher capital charges are ascribed to affiliated investment holdings, real estate, below-investment-grade bonds and nonaffiliated, privately traded common and preferred shares because of the illiquid nature of the asset and/or volatility of the reported value.

For those companies that have a material amount of foreign investments in a particular investment category, the risk charge for that asset category may be increased to reflect the increase in volatility and/or decrease in liquidity associated with those foreign markets, financial systems and economies.

Credit Risk

Capital charges are applied to different receivable balances to reflect third-party default risk. Credit risk factors are ascribed to recoverables from all registered and unregistered reinsurers, including affiliates. Required capital for credit risk may be modified after taking into account any collateral offsets for reinsurance balances; the quality of the reinsurers that participate in the company's reinsurance program; and the company's dependence on its reinsurance program. Also included in the credit risk component are charges for premium receivables from agents and brokers, policyholders and installment premium balances. Included as well are funds held by residual market entities – the Facility Association and the P.R.R. – and other miscellaneous receivables.

Underwriting Risk

Underwriting risk is the largest risk category and typically accounts for two-thirds of a company's gross required capital. This category encompasses both loss and loss-adjustment expense reserves and net premiums written. The loss-reserve component requires capital based on the risk inherent in a company's loss reserves, adjusted for A.M. Best's assessment of its reserve equity. Reserve equity is a function of the estimated reserve deficiency, the payout pattern of the reserves and the discount rate, which is currently 4% in BCAR. The net premiums written component requires capital based on the pricing risk inherent in a company's mix of business. In addition, required capital for the reserve and premium components may be increased to reflect an additional surcharge for "excessive" growth in exposure. Finally, there is credit for a well-diversified book of business, but this credit is limited for those companies that maintain small books of many lines of business and might not necessarily have expertise in all of these lines.

Collectively, these three broad risk categories (investment risk, credit risk and underwriting risk) generate more than 99% of a company's gross required capital, with an additional business risk component generating minimal capital requirements for off-balance-sheet items. Off-balance-sheet items include items such as noncontrolled assets, guarantees for affiliates, contingent liabilities, pension obligations and other post-employment/retirement obligations. A company's gross required capital, which is the sum of the capital required to support all of its risk components, reflects the amount of capital needed to support all risks were they to develop simultaneously. These individual components then are subjected to a "square root rule" covariance calculation within the BCAR formula to account for the assumed statistical independence of these components. This covariance adjustment essentially says that it is unlikely that all of the individual risk components will develop simultaneously, and it generally reduces a company's overall required capital between 35% and 45%.

A.M. Best recognizes the distortions caused by this "square root rule" covariance adjustment, whereby the more capital-intensive underwriting risk components are accentuated disproportionately, while the less capital-intensive asset risk components are diminished in their relative contribution to net required capital. Nevertheless, by using other distinct capital measures, A.M. Best can counterbalance this apparent shortcoming.

A.M. Best makes a number of adjustments to a company's reported surplus within the Canadian capital model to provide a more economic and comparable basis for evaluating capital adequacy. Goodwill and other intangible assets are eliminated. Other significant adjustments are related largely to equity, or economic values, embedded in loss and loss-adjustment expense reserves, fixed-income securities and common stocks. Further adjustments are made to surplus to reflect the pricing risk inherent in unearned premium reserves and non-balance-sheet risks, including catastrophe exposures and debt-service requirements.

The model also can be adjusted in response to various market issues. Some examples of the issues that can impact capitalization include rate changes, the stage of the underwriting cycle, changing reinsurance products and dependence on reinsurance. The ability of the model to respond to these market issues makes it a dynamic tool that assists in the evaluation of the company's balance sheet strength.

Long duration contracts are defined as contracts having terms in force for more than 13 months and for which the insurer cannot cancel or increase the premium during the life of the contract. Long duration contracts create larger unearned premium reserves than contracts with one-year terms. This creates a larger pricing risk in the unearned premium reserve than anticipated for contracts having terms of one year or less. In order to capture this increased risk, the long duration unearned premiums will be included on the loss reserve page. The unearned premiums are included on the loss reserve page instead of the pricing risk page in an effort to reflect diversification from business being written in the future versus business written in the past. Other adjustments such as credit risk, unearned premium equity and written

Exhibit 1
BCAR Guidelines

BCAR	Implied Balance Sheet Strength
175	A++
160	A+
145	A
130	A-
115	B++
100	B+
90	B
80	B-
70	C++
60	C+
50	C
40	C-
<40	D

premiums will be made in an effort to capture other risks associated with writing long duration contracts. These adjustments will vary based on the terms of the contracts and the structure of the business.

Given strong, stable operating performance, sound risk management, a strong business profile, high-quality capital and strong financial flexibility, on a historical and prospective basis, **Exhibit 1** provides a reasonable guide for the BCAR levels needed to support A.M. Best's Financial Strength Ratings.

Formula Drivers
Generally, more than two-thirds of a company's gross capital requirement within A.M. Best's Canadian capital model is generated from its loss reserve and net premiums written components. Consequently, a company's absolute BCAR value is influenced largely by the capital required to support its net underwriting commitment, which in turn is largely a function of a company's mix of business, size of surplus, stability of loss development, profitability, loss-reserve adequacy and length of claims payout. All things being equal, a company's absolute BCAR value will be lower because of higher capital requirements associated with higher underwriting leverage, greater indicated reserve deficiencies, and unstable or unprofitable business.

While only one-third of the gross capital requirement is generated from investment risk, interest-rate risk and credit risk components, a company that maintains a more aggressive investment portfolio, depends heavily on pyramided capital, has excessive credit risk or depends excessively on reinsurance likely will generate a lower BCAR value.

Additional Stress Testing
A.M. Best also will stress a company's BCAR score for a second catastrophic event. The testing may incorporate natural catastrophes and/or man-made events to monitor how sensitive a company's balance sheet strength is to a second catastrophic event. For casualty writers, an estimate of a casualty shock loss may be used in the analysis of balance sheet strength. Additional stresses may be employed when insurers accumulate large amounts of higher risk investments.

Conclusion
The tools to better allocate capital and understand capital strength continue to evolve. These tools often vary in theory, purpose and outcome. It is important to remember that, while they can add significant value, they are only tools. A.M. Best's proprietary BCAR model looks at capital requirements well above financial solvency. A.M. Best will continue to enhance BCAR to improve its accuracy in measuring balance sheet and operating risk.

BCAR is important to A.M. Best's evaluation of both absolute and relative capital strength. Consistent with standards embedded within the BCAR model, it is expected that well-managed and highly rated companies will maintain risk-adjusted capitalization levels in excess of the amounts indicated by the published guidelines to support their current ratings.

A.M. Best cautions that although BCAR is an important tool in the rating process, it is not the sole basis of a rating assignment. BCAR, like other quantitative measures, has limitations. Consequently, capital adequacy should be considered within the 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 result, 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.

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Best's Financial Strength Rating (FSR): an independent opinion of an insurer's financial strength and ability to meet its ongoing insurance policy and contract obligations. An FSR is not assigned to specific insurance policies or contracts.

Best's Issuer Credit Rating (ICR): an independent opinion of an entity's ability to meet its ongoing financial obligations and can be issued on either a long- or short-term basis.

Best's Issue Rating (IR): an independent opinion of credit quality assigned to issues that gauges the ability to meet the terms of the obligation and can be issued on a long- or short-term basis (obligations with original maturities generally less than one year).

Rating Disclosure: Use and Limitations

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