

Understanding BCAR For Life and Health Insurers

A.M. Best's Capital Adequacy Ratio for Life/Health Insurers and Its Implications for Ratings

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.

For interactive ratings, A.M. Best believes the balanced approach of evaluating a company on both quantitative and qualitative levels provides a better analysis of a company and also results in a more discerning and credible rating opinion.

A.M. Best's quantitative evaluation is based on an analysis of key financial tests and supporting data on both statutory and generally accepted accounting principles (GAAP) bases. Results are reviewed for each operating entity on a stand-alone basis, as well as at a consolidated level. These tests and analyses, which underlie A.M. Best's evaluation of balance-sheet strength and operating performance, vary in their importance depending on a company's characteristics.

A company's quantitative results are evaluated on their own merits and then compared with both industry aggregates and averages as established by A.M. Best, as well as the results of relevant peer groups. These peer groups are developed based on the performance of other insurance companies with comparable mixes of business and organizational structures.

A.M. Best's qualitative evaluation supple-

ments the analysis of financial results and trends and includes assessment of an insurer's strategic positioning, operating plans, financial and risk-management expertise, and exposure to regulatory and competitive challenges. These qualitative factors are critical to the overall rating process as a barometer of an organization's ability to react to changing market dynamics, a key to sustaining long-term financial strength.

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), which provides a quantitative measure of the risks inherent in a company's investment and insurance profile relative to its statutory capital and surplus.

BCAR, however, is only one tool used in the analysis of an insurer's statutory capital position. A.M. Best's analysis also encompasses a thorough review, using various financial tests and ratios, of historical trends over a five-year period of a company's:

- Reported capital and surplus, including a comparison of the growth rate of statutory capital to the growth rate in assets and net premiums written;
- Exposure to various types of leverage, such as operating leverage (net premiums written to capital or capital to liabilities), financial leverage (debt and debt-like instruments to capital) and reinsurance leverage (reserves ceded to capital);
- Historical sources of growth in capital,

Questions regarding A.M. Best's BCAR methodology for life/health insurers can be directed to Edward Easop, assistant vice president, or Stephanie Guethlein McElroy, senior financial analyst, both in the life/health division.



such as operating gains, capital gains, capital contributions, etc.; and

- Quality and diversity of invested assets through a review of trends in asset allocations, exposure to higher-risk assets, and asset concentrations by class, issuer and industry.

A.M. Best's assessment of balance-sheet strength also includes an analysis of an organization's balance sheet under GAAP at both the operating insurance company and holding company levels. The analysis of an insurer's GAAP capital position is similar in many respects to the analysis done on the statutory balance sheet. The GAAP analysis of an operating company incorporates a review of trends in various financial tests and ratios aimed at measuring the relative risk to the entity's capital base generated by its own activities. Meanwhile, the holding company analysis provides valuable insight into how activities outside of the insurance operations potentially could affect the insurer's capital position—either as a source of added financial flexibility and long-term strength or as a potential drain on capital.

The holding company analysis includes an assessment of the organization's consolidated capital structure, financial leverage, fixed-charge coverage (ratio of earnings or cash in relation to fixed charges, such as interest on debt) and other key ratios. Another important element of the analysis is a review of the holding company's historical sources and uses of funds to help determine whether the organization's noninsurance operations are net providers or net users of capital.

Overview of BCAR

A.M. Best's life/health BCAR model is designed to capture major life and health insurance company risks and quantify the level of capital needed to support them. As shown below, A.M. Best's capital formula computes required capital to support four broad risk categories: asset risk, insurance risk, interest-rate risk

and business risk. The A.M. Best model also contains an adjustment for covariance, reflecting the statistical independence (mutually exclusive nature) of the individual components. A company's adjusted surplus is divided by its net required (risk-based) capital, after the covariance adjustment, to determine its BCAR score.

The BCAR model isn't a pass/fail test; rather, it is used to measure a company's capital position, relative to A.M. Best expectations, as an integral part of the determination of an ongoing concern's financial strength rating. The BCAR model also has a degree of flexibility, i.e., analysts can use discretion in making adjustments to the model based on their knowledge of the company, making the model an interactive tool. These adjustments within A.M. Best's capital model provide a more economic and comparable basis for evaluating capital adequacy. They serve to level the play-

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Best's Ratings reflect the A.M. Best Company's 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. These ratings are not a warranty of an insurer's current or future ability to meet its contractual obligations, nor are they a recommendation to buy, sell or hold any security. Further, any and all information herein is provided "as is," without warranty of any kind, expressed or implied. A.M. Best Company receives compensation for its interactive financial strength ratings, from the insurance companies it rates. In compliance with the Securities Act of 1933, A.M. Best also discloses that it receives rating fees from most issuers of the debt securities it rates. Those fees fall within a range of \$ 7,500 to \$ 500,000.

Price: *BestWeek* subscribers can download a printed copy of the full 12-page special report, "Understanding BCAR for Life and Health Insurers" or a combination of the printed report plus a spreadsheet file of the data from our Web site, www.bestweek.com.

Nonsubscribers can download a printed copy of this special report for \$50 or a combination of the printed report and spreadsheet file for \$125 from our Web site, www.bestweek.com. Call customer service for more information, (908) 439-2200 ext. 5742.



The Insurance Information Source

A.M. Best's Capital Formula Components/ Risk Categories

| Section | Measures | Basis |
|--------------------------|--|--|
| C - 1 Asset Risk | Asset Default Risk | Market Value Fluctuation and Credit Risk |
| C - 2 Insurance Risk | Mortality and Morbidity Risk | Pricing and Underwriting Risk |
| C - 3 Interest Rate Risk | Liability and Reinvestment Risk | Liquidity Risk |
| C - 4 Business Risk | Miscellaneous Risk | General Business Risk |
| Capital and Surplus | Capital to Support Business Operations | |

ing field and compensate for certain economic values not reflected in the statutory financials.

In addition, A.M. Best analysts might supplement their initial assessment of a company's baseline capital position by performing various sensitivity calculations. These analyses might quantify the capital required to support future business plans, reflecting the effect of pro forma transactions or the current quarter-ending capital position. These sensitivity calculations would quantify the extent of the capital cushion or shortfall relative to a company's current rating level. The ability of the model to respond to these market issues makes it a robust tool that assists in the evaluation of the company's balance-sheet strength.

C-1: Asset Risk

Base Default Risk. C-1 charges reflect the

risks that a particular asset will default or significantly lose value. Within the C-1 section, a company's investment portfolio is segregated by asset class. Risk factors are assigned relative to the volatility of each class, with the following major asset classes: bonds, preferred stock, common stock, mortgage loans, real estate and other assets. Within each asset class, further distinctions are made to reflect the varying levels of credit quality, liquidity and volatility within a particular class of assets. A.M. Best's risk factors were developed after reviewing industry default statistics and proprietary empirical data.

Treatment of Affiliated Investments. Affiliated investments in bonds and preferred stocks are assessed additional risk charges to account for the potential diminished liquidity and double leverage in the organization. Subsidiary

Recent Changes in Default Risk Factors

The risk factors for bonds were increased in 2002 to reflect deteriorating credit quality. Bonds represent almost 74% of the life insurance industry's invested assets and more than 800% of the capital and surplus of the industry. Hence, bond portfolios represent the largest asset risk to the capital of a life/health insurance organization. A.M. Best evaluates industry bond default rates in setting its risk factors, as well as internal data analysis. After reviewing both internal and external default data, A.M. Best believes that higher risk charges are required to reflect the increased risk in debt markets, particularly in below-investment-grade issues. Additionally, because of modifications in prescribed accounting treatment, companies now are required to recognize impairments more quickly, thereby directly impacting capital.

The risk factors for preferred and common stocks haven't changed in recent years, reflecting A.M. Best's view that these factors are appropriate for these investments. As the equity markets climbed through the late 1990s, companies continually challenged this risk factor, even as they grew their capital bases through unrealized gains on their equity portfolios. Given the equity-market decline from 2000 through 2002, A.M. Best believes the conservative stance was appropriate and warranted by the capital losses the industry experienced. The common-stock factor within the life/health BCAR model—30%—is different from the risk charge in the property/casualty model. This reflects the long-term, buy-and-hold nature of life insurers' investments in common stock relative to the shorter-term, cash-flow nature of property/casualty insurers. A.M. Best also believes the higher factor is warranted by the stock market's volatility, as unrealized capital gains in stocks had contributed strongly to growth for several years but subse-

quently caused deterioration in capital and surplus for many life companies since 2000.

The risk factors for mortgages and real estate have remained constant in recent years. The concentration of insurance industry assets in these investments has decreased significantly since the inception of the model. Mortgage loans represented more than 20% of industry assets 15 years ago and currently represent slightly more than 10% of assets. Similarly, real estate investments declined from more than 3% to only 1% of industry assets. As many companies decreased their direct mortgage and real estate concentrations, however, aggregate investments in real-estate-related holdings have grown through collateralized mortgage obligations and other securitized vehicles.

Many companies perceive the increased use of collateralized securities, including commercial and residential mortgage-backed securities and asset-backed securities, as a way to participate in the mortgage and real estate arena without direct investment exposure. Assessing the overall risks of these collateralized securities, however, is difficult and/or elusive, given the extreme sensitivity to interest-rate risk of certain structures. Recent refinancing activity, fueled by the low interest-rate environment, has affected the asset-duration and cash-flow/reinvestment assumptions underlying many collateralized mortgage securities. To reflect the potential volatility and heightened reinvestment risk of certain more exotic instruments, an additional risk charge of 15% is allocated in the model as a derivatives charge. This charge can be adjusted based on a qualitative evaluation of a company's track record within the asset class, its overall expertise in asset-liability management and its exposure to combined mortgages, real estate and collateralized obligations.

holdings in common stock initially are assessed a risk charge of 100%, subject to adjustment based on the liquidity of the investment, i.e. the investment is traded on a stock exchange and has a supportable market value. Independent, external valuations are required before an adjustment can be given for an affiliated, non-insurance, common-stock holding. Under no circumstances is the risk charge reduced below the unaffiliated common stock charge of 30%. For insurance affiliates, any adjustment to the capital charge is based on A.M. Best's assessment of the risk-adjusted capital position of the subsidiary on a stand-alone basis.

Spread of Risk Factor. The asset risk assessed for each insurer also is subject to a spread-of-risk factor, based on the relative size of the investable portfolio. The spread of risk is a sliding-scale factor that is applied to the aggregate, nonaffiliated investments in bonds, common and preferred stock, mortgages, real estate, cash and short-term investments and other invested assets. The factor decreases as the portfolio of qualifying assets increases, reflecting the ability of a larger organization to diversify its risk across a broader range of

issuers and asset classes. By applying the spread-of-risk factor to this pool of qualifying assets, A.M. Best recognizes the benefits of dispersing risk across all major asset classes.

Concentration Risk. Concentrations of particular investments are subject to the single large investment limit, which applies increased risk factors to investments that exceed more than 10% of the company's adjusted capital and surplus including asset-valuation reserve. The additional charge is assessed only on that portion of the investment exceeding the 10% limit. A.M. Best's single large investment factor isn't capped at a maximum rate, and it applies to each company's 10 largest holdings by asset class.

C-2: Insurance Risk

The insurance risk capital factors in the C-2 section of the BCAR model are based on the integration of the risk inherent in a particular line of business and the company's size. The BCAR divides insurance risks into mortality and morbidity components. Mortality risks are assessed based on volume of insurance, net of reserves and reinsurance, with risk charges

The Impact of Scale on Assessing Morbidity Risk

A.M. Best believes that morbidity risk varies not only by line of business or type of product but also by the volume of earned premium. As a result, morbidity risk factors by product are applied using a two-tier approach. The first tier is a higher charge assessed on premiums up to a prescribed threshold; the second tier is a lower charge assessed on premiums above the threshold. This tiered approach recognizes the benefits of diversifying risk over a larger insured/membership base. In recent years, premium volumes have grown predominantly because of health-care cost inflation, rather than growth of membership. Therefore, the level of premium at which a line might benefit from diversification has risen considerably, leading A.M. Best to raise the thresholds over which the lower, second-tier

A.M. Best's Accident and Health Risk Factors (\$ Millions)

| Product Type | First Tier Factor | Earned Premium Threshold | Second Tier Factor |
|--|-------------------|--------------------------|--------------------|
| <i>Individual Accident & Health:</i> | | | |
| Hospital & Major Medical | 0.25 | \$50 | 0.15 |
| Hospital Indemnity/AD&D | 0.08 | N/A | 0.08 |
| Medicare Supplement | 0.12 | 50 | 0.07 |
| Medicare+Choice | 0.20 | 75 | 0.125 |
| Medicaid | 0.20 | 50 | 0.125 |
| Fee-for-Service | 0.01 | N/A | 0.01 |
| Disability—Noncancelable | 0.45 | 50 | 0.20 |
| Disability—Other Indiv Disability Income | 0.30 | 50 | 0.10 |
| Long-Term Care | 0.30 | 50 | 0.18 |
| Dread Disease | 0.12 | N/A | 0.12 |
| <i>Group Accident & Health:</i> | | | |
| Hospital & Major Medical | 0.15 | 75 | 0.09 |
| Hospital Indemnity/AD&D | 0.08 | N/A | 0.08 |
| Federal Employee Health Benefit Plan | 0.15 | 75 | 0.09 |
| Dental | 0.12 | 25 | 0.076 |
| Vision | 0.10 | 25 | 0.06 |
| Disability—Long-Term | 0.20 | 50 | 0.05 |
| Disability—Short-Term | 0.07 | 50 | 0.05 |
| Long-Term Care | 0.25 | 50 | 0.15 |
| Dread Disease | 0.12 | N/A | 0.12 |
| Stop Loss & Minimum Premium Plan | 0.30 | N/A | 0.30 |

graded lower for higher volumes. These charges reflect the surplus needed for excess claims and pricing or reserve inaccuracies.

A.M. Best capital charges for morbidity risks were determined by a detailed evaluation of the risks of different accident-and-health business lines, premium inflation and the quality of reserves. A.M. Best believes the risk profiles of individual and group health lines are substantially different, with the individual lines generally bearing higher risk. Additionally, risk exposures of hospital and major medical, Medicare, Medicaid and fee-for-service also differ substantially and therefore warrant different charges. The C-2 section also includes charges applied to administrative-services-only and administrative-services-contract premium equivalents. Although little morbidity risk generally is associated with premium equivalents, charges in this area reflect A.M. Best's view of the capital needed to support the significant investments required in technology and systems for this administrative fee-based business.

Reserve levels on accident-and-health products also are given considerable attention as another exposure on the balance sheet. The

BCAR currently assesses a flat 5% charge to total claim reserves on accident-and-health products, covering the possibility of negative reserve development. In addition, using a number a different data sources, A.M. Best reviews historical reserve development and current reserve margins above any third-party estimate. A.M. Best also evaluates a company's policy for the desired level of margin and premium-stabilization funds and whether these percentages are maintained consistently.

Credit Charge for Provider Contract Arrangements. This charge reflects the level of risk a managed-care organization faces when making capitation payments to providers and intermediaries who don't provide the insured member with the agreed-upon services. Additionally, in this case, the managed-care organization might incur additional, unforeseen costs in arranging for alternative services coverage for its insured.

Managed Care Credit. This credit reflects the reduction in the overall premium risk charge for a managed-care organization. A company that enters managed-care arrangements receives a credit for reducing the uncertainty about future claim payments.

charge applies. The accident-and-health risk factors and earned-premium thresholds, by product, are included in the table, *A.M. Best's Accident and Health Risk Factors*.

A.M. Best also recognizes the added benefits of diversity achieved by offering multiple lines of business, compared with those achieved by growing enrollment only in one line. Therefore, premiums from individual and group hospital and major medical, Medicare+Choice, Medicaid and the Federal Employee Health Benefit Plan (FEHBP) are treated in aggregate when determining the amounts from each line to be assessed with the higher charges associated with the first tier. The calculation of the tiers for individual, Medicare+Choice, Medicaid, group and FEHBP products work together as a "waterfall" effect between the higher and lower tiers. The order of the waterfall is determined by the amount of risk associated with each line of business, with the highest risk first (individual, Medicare+ Choice, Medicaid, group and FEHBP). For a company with more than one of the above lines of business, the waterfall works as follows:

1. Calculate C-2 premium risk on individual—hospital and major medical—applying the higher-tier charge to the first \$50 million in earned premium, the individual threshold.
2. Carry forward the individual earned premium that received the higher-tier charge to the tiered calculation for Medicare+Choice, i.e. a company with \$50 million in individual earned premium will incur the higher-tier charge on only the first \$25 million of earned premium for Medicare+Choice, which has a \$75 million threshold.
3. Carry forward the aggregate premium amounts assessed the higher-tier charge for both individual and Medicare+Choice to the tiered calculation for Medicaid, up to the \$50 million threshold for Medicaid.
4. Carry forward the aggregate premium assessed the higher-tier charge for the previous products to group, up to the \$75 million threshold.
5. Same as Step 4, including the group—hospital and major medical—premium assessed the higher tier-charge, up to the \$75 million FEHBP threshold.

C-3: Interest Rate Risk

The risk charges in the C-3 section reflect changes in interest rates, including the potential impact of asset/liability mismatches. The C-3 charges are based on the level of reserves in both annuity and life insurance products. Risk charges on annuity reserves vary by withdrawal characteristics, surrender-charge expiration and by the insurer's ability to make market-value adjustments to the crediting rates. Each of these characteristics allows the insurer to better manage its investment portfolio relative to its liabilities, thereby limiting capital risks. The annuity charges also consider the relationship between product persistency and the method by which the product is distributed. For example, policies sold through affiliated channels, such as a career agency force, are presumed to exhibit stronger persistency compared with policies sold by an unaffiliated broker/dealer or other financial institution.

C-4: Business Risk

The C-4 charges represent the numerous general business risks of a life and health insurance company, including risks posed by the legal, regulatory and competitive environments. The C-4 charges in the BCAR model historically have been linked directly to state guaranty-fund assessments. A.M. Best has modified its approach to recognize the other general business risks, noted above, by increasing the charges assessed on life and annuity premiums and including a charge for accident and health and health maintenance organization premiums.

The C-4 section also might include charges

for contingent liabilities; off-balance-sheet items such as securities not under the control of the reporting entity; guarantees to affiliates; forward funding commitments; debt-service requirements; and surplus relief. Securities in lending programs previously were considered as a contingent liability; this item, however, has been removed from the calculation and now is considered part of A.M. Best's qualitative review of a company's investment portfolio.

The risk charges for separate-account business have been moved to the C-4 section from the C-1 (Asset Risk) section. A.M. Best believes there is a capital requirement to maintaining a presence in separate-account products. Since the investment risk of separate-account business, however, is passed on to the policyholder, the asset-risk section was determined to be an inappropriate location for these charges. Additional detail regarding our assessment of separate-account risks follows in the section titled "Evolution of the BCAR model."

Adjusted Capital and Surplus

In the calculation of a company's BCAR score, the aggregate required capital is compared with adjusted capital and surplus. Reported capital and surplus plus the asset-valuation reserve and other conditional reserves are the starting point for adjusted capital and surplus. A.M. Best's model then allows for adjustments to this starting point for the current year's amortization of the interest-maintenance reserve and credit for a portion of unearned premium reserves and dividends payable.

The BCAR model emphasizes the perma-

Treatment of Surplus Notes

A.M. Best's model initially deducts surplus notes from the BCAR calculation because of the provisional characteristics of these debentures. After an in-depth review of the debt instrument, A.M. Best considers whether the surplus notes enhance the quality of the company's long-term surplus position. For purposes of calculating a company's BCAR ratio, A.M. Best takes a conservative approach by factoring in credit for surplus notes on an individual basis, reflecting the specific terms of the issuance. A.M. Best generally—but not in all cases—will give 100% surplus credit to the securities if they have a very long maturity—more than over 15 years—and the combined securities don't exceed 50% of total statutory capital.

The initial step in the evaluation is to review the specific terms and conditions of the debt instrument, which the com-

pany must provide to A.M. Best. The security is analyzed and factors are applied to the note, based on the remaining term, to determine the appropriate equity credit for the BCAR model. In determining a company's financial strength rating, A.M. Best's rating procedure includes both quantitative and qualitative evaluation of the company's financial condition and its operating performance; therefore, adjustments might be made to the equity credit based on other information. A.M. Best recognizes that surplus notes are debt instruments that have the expectation of repayment. Therefore, the model gradually decreases equity credit from 100% for notes with more than 15 years remaining to maturity, to zero credit for notes within two years of maturity. A.M. Best believes that as the maturity date approaches, the company should have a plan for repayment or refinancing.

net capital of an organization and will reduce a company's capital and surplus for any encumbered capital, including surplus notes, anticipated repayment of financial reinsurance or capital deficiency to support a subsidiary's Best's rating. A.M. Best also historically has reduced a company's reported capital and surplus for operating losses in any line of business, assuming that these losses by line would recur in the following year. Given the cyclical nature of certain lines of business, however, A.M. Best recognizes that certain operations can support others in different economic environments. Therefore, this item has been revised to reduce capital only if there is a net operating loss for the company in total, allowing gains in one line to offset losses in another. This change continues to reflect A.M. Best's view that sustained profitability and operating contributions to surplus are crucial components of long-term capital adequacy. It also should be noted that any reduction caused by operating losses can be modified by the analyst for one-time or nonrecurring items that impact operating results.

A.M. Best also has modified its treatment of derivatives in the adjusted capital and surplus calculation, removing the previous derivatives references that gave credit/debits for the net open-market exposure on open derivatives and for the net economic impact of derivatives. The previous treatment in the model was based largely on supplemental data received from companies. Because of inconsistencies in reporting, however, the impact of derivative holdings varied widely across the industry. These have been replaced with a more transparent charge that decreases capital and surplus by 10% of the amount shown as the off-balance-sheet potential exposure column in Schedule DB-Part E, Section 1, Column 11, of the statutory annual statement blank.

Additionally, analysts might consider making other adjustments to reflect financial accounting distortions or qualitative issues that might affect a particular company's prospective capital needs. This flexibility is necessary to meet A.M. Best's objective of providing a relative assessment of capitalization and financial strength as part of a comprehensive rating analysis.

Evolution of the Life/Health BCAR Model

As new risks have emerged over time and

the magnitude of previously identified risk factors has fluctuated, the BCAR model and the overall rating process have been modified. Recent changes to the risk factors, reflecting the changing operating environment, have been discussed throughout this report. In the past two years, however, a number of significant enhancements have been made to the BCAR model to provide a more flexible, comprehensive tool for assessing capital adequacy across all life and health insurance lines.

Separate Accounts. For variable life and annuity products, A.M. Best historically assigned separate-account risk charges at 1.25% and 1.40%, respectively, which had been considered high by many industry insiders. As with the common-stock charge, A.M. Best kept these charges intact for many years and noted the decline in separate-account assets and the capital of many large variable-product insurers as the equity markets declined. Additionally, recent concerns about product guarantees and riders have led carriers to increase their reserves on guaranteed products. A.M. Best continues to believe that, although the policyholder bears the investment risk, these lines of business represent a risk to the capital of an insurance company. Risk charges, however, have been decreased for all companies to a maximum of 1.00%, or 100 basis points, on both life and annuity products to reflect the maturity of the market.

The previous charges recognized the start-up nature of variable product lines and the expenses involved in establishing these products. The current charges reflect pricing risk, reinsurance and hedging risk, the risk of guarantees inherent in certain product designs and the potential risk of regulatory or market changes in the treatment of these products. Additionally, A.M. Best has developed a sliding scale for companies with separate-account reserves greater than \$10 billion, with the risk charge reduced to 85 basis points on reserves greater than \$50 billion. Analysts can make further adjustments to the risk charges based on a qualitative review of an individual company's mix of products, liability characteristics and risk-management expertise.

Spread of Risk. The BCAR model incorporates a spread-of-risk charge that is intended to reflect the dispersion of assets based on the size of each insurer's invested-asset portfolio. Companies with larger investment portfolios are perceived to benefit from diversification of assets, providing additional safety and cush-

ion to the portfolio. Since the inception of the BCAR and the risk-based capital models more than 10 years ago, the industry has modified its investment portfolios to reflect the opportunity costs of holding investments with high risk charges.

For year-end 2003, the spread-of-risk factor was increased to result in a maximum aggregate spread-of-risk charge of three times the calculated asset risk (pre spread-of-risk). This change reflects the growth in the industry's assets in the past decade, as well as the wider range in individual companies' asset sizes across the population. Before 2003, the maximum change was two times. Concurrently, the upper threshold for the spread-of-risk charge—the point at which the spread-of-risk factor reaches zero—was dropped to \$10 billion in qualifying assets, a significant decrease from the prior threshold of \$100 billion. This reflects A.M. Best's belief that companies with more than \$10 billion in qualifying assets have the scale necessary to efficiently and effectively diversify their investment portfolios by asset class and issuer. These changes, when considered in conjunction with the establishment of new guidelines for minimum BCAR levels shown in the exhibit, *Life/Health BCAR Guidelines*, reflect a minor impact on the overall assessment of balance-sheet strength for most companies.

Modified Coinsurance. A.M. Best requests that each company reports the impact of modified coinsurance and funds-withheld treaties on reported assets in A.M. Best's Supplemental Rating Questionnaire. A.M. Best's analysts have the ability in the model to calculate adjustments to recognize the transfer of default risk (C-1 Asset Risk) related to this type of reinsurance.

A.M. Best's Life/Health BCAR Guidelines

| A.M. Best Rating | Life/Health BCAR Guidelines |
|------------------|-----------------------------|
| A++ | 175% |
| A+ | 160% |
| A | 145% |
| A- | 130% |
| B++ | 120% |
| B+ | 110% |
| B | 100% |
| B- | 90% |
| C++ | 80% |
| C+ | 70% |
| C | 60% |
| C- | 50% |

BCAR and Financial Strength Ratings

The BCAR model provides an integrated evaluation of a company's investment, credit, underwriting and business risks as compared with the company's level of economic surplus. Within this evaluation, A.M. Best includes many adjustments that recognize the company's specific risk and economic surplus. Because of this integrated evaluation of operating risk, the BCAR model is an important tool in evaluating a company's financial strength.

While the BCAR model is an important quantitative tool, it is only one measure of a company's capitalization; that is, the BCAR score isn't the sole determinant of a company's rating, let alone its financial strength. In many cases, companies with similar BCAR scores might have significantly different ratings based on the operating performance and the business profile of the organizations. In addition, the quality of the capital might differ greatly between companies and is a key component in A.M. Best's assessment of balance-sheet strength, as well as its overall financial strength analysis. Many soft-capital transactions are admitted as surplus under statutory accounting but ultimately might drain cash, place a drag on earnings or only provide contingent capital, which might compromise policyholder security and, correspondingly, a company's financial strength rating.

Given standard operating and business-profile issues, the accompanying table provides a reasonable guide for the minimum BCAR levels needed to support Financial Strength Ratings.

Availability of BCAR Output

Because of the sensitive nature of the underlying adjustments and qualitative information incorporated in a company's BCAR calculation, detailed BCAR output for a particular company is made available only to that company's management. Often, a discussion of A.M. Best's capital model is included in rating meetings, particularly when capitalization is a conspicuous rating issue. A.M. Best analysts generally are available to run a limited number of scenarios to aid management in understanding the impact of their decisions on their BCAR and, ultimately, on A.M. Best's view of capital strength.

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A.M. Best's Capital Adequacy Ratio (BCAR) Model Abstract—2003 Data

This condensed BCAR model is for illustrative purposes only.

| C-1 ASSET RISK | Annual Statement or Questionnaire Amount | RBC Factor | Gross RBC | Net RBC | Other Adjustments | Single Largest/ Adjusted RBC |
|--|---|----------------------|----------------------|----------------------|--------------------------|-------------------------------------|
| BONDS | | | | | | |
| Exempt Obligations | 1,133,154,898 | 0.0010 | 1,133,155 | 1,133,155 | 0 | 1,133,155 |
| Class 1 Category | 5,878,742,816 | 0.0080 | 47,029,943 | 47,029,943 | 0 | 47,029,943 |
| Class 2 Category | 3,241,934,302 | 0.0250 | 81,048,358 | 81,048,358 | 0 | 81,048,358 |
| Class 3 Category | 507,139,383 | 0.0600 | 30,428,363 | 30,428,363 | 0 | 30,428,363 |
| Class 4 Category | 159,966,127 | 0.1200 | 19,195,935 | 19,195,935 | 0 | 19,195,935 |
| Class 5 Category | 29,562,948 | 0.2500 | 7,390,737 | 7,390,737 | 0 | 7,390,737 |
| Class 6 Category | 19,827,266 | 0.3750 | 7,435,225 | 7,435,225 | 0 | 7,435,225 |
| Unrated Str Sec Acq by Conv | 0 | 0.0000 | 0 | 0 | 0 | 0 |
| Affiliated | 0 | 0.2500 | 0 | 0 | 0 | 0 |
| SUBTOTAL - Bonds | 10,970,327,740 (Excl Affil) | | 193,661,716 | 193,661,716 | 0 | 193,661,716 |
| PREFERRED STOCK | | | | | | |
| Class 1 Category | 155,324,991 | 0.0300 | 4,659,750 | 4,659,750 | 0 | 4,659,750 |
| Class 2 Category | 18,030,870 | 0.0400 | 721,235 | 721,235 | 0 | 721,235 |
| Class 3 Category | 549,998 | 0.0700 | 38,500 | 38,500 | 0 | 38,500 |
| Class 4 Category | 109,597 | 0.1200 | 13,152 | 13,152 | 0 | 13,152 |
| Class 5 Category | 12,873,340 | 0.2200 | 2,832,135 | 2,832,135 | 0 | 2,832,135 |
| Class 6 Category | 0 | 0.3000 | 0 | 0 | 0 | 0 |
| Affiliated - Life with AVR | 0 | 0.7500 | 0 | 0 | 0 | 0 |
| Affiliated - Other | 0 | 0.7500 | 0 | 0 | 0 | 0 |
| SUBTOTAL - Preferred Stock | 186,888,796 (Excl Affil) | | 8,264,772 | 8,264,772 | 0 | 8,264,772 |
| COMMON STOCK | | | | | | |
| Unaffiliated | 9,588,098 | 0.3000 | 2,876,429 | 2,876,429 | 0 | 2,876,429 |
| Affiliated | 166,219,791 | 1.0000 | 166,219,791 | 166,219,791 | 0 | 166,219,791 |
| (-) Carry Val-LifeSubs w/AVR | 0 | 1.0000 | 0 | 0 | 0 | 0 |
| SUBTOTAL - Common Stock | 175,807,889 | | 169,096,220 | 169,096,220 | 0 | 169,096,220 |
| MORTGAGE LOANS | | | | | | |
| Resid. Guar. & Non-Guar. + Farm | 228,911 | 0.003 & 0.005 | 2,210 | 2,210 | 0 | 2,210 |
| Comm. - Insured/Guaranteed | 399,502 | 0.0050 | 1,998 | 1,998 | 0 | 1,998 |
| Comm. - All Other (CNG) | 1,721,055,039 | 0.0500 | 86,052,752 | 0 | 0 | 0 |
| CNG: Mortgage Qual Factor Applied | 0 | 0.0380 | 0 | 65,480,627 | 0 | 65,480,627 |
| Restructured, Overdue, In Foreclosure | 92,071,283 | .07, .15, .20, 1.0 | 7,420,097 | 7,420,097 | 0 | 7,420,097 |
| SUBTOTAL - Mortgage Loans | 1,805,126,920 | | 93,477,057 | 72,904,932 | 0 | 72,904,932 |
| REAL ESTATE | | | | | | |
| SUBTOTAL - R.E. (Incl. Encumbr.) | 280,755,912 | | 35,144,946 | 35,144,946 | 0 | 35,144,946 |
| OTHER ASSETS | | | | | | |
| Cash (Balance) | 465,994,819 | 0.0015 | 698,992 | 698,992 | 0 | 698,992 |
| Short-Term Investments (Stmt Value) | 217,129,836 | 0.0030 | 651,390 | 651,390 | 0 | 651,390 |
| Premium Notes (Net Admitted) | 0 | 0.1000 | 0 | 0 | 0 | 0 |
| Write-In Investment | 0 | 0.4000 | 0 | 0 | 0 | 0 |
| Other Invested Assets | 1,124,718,681 | .0036 - 1.0 | 408,725,370 | 408,725,370 | 0 | 408,725,370 |
| SUBTOTAL - Other Assets | 1,807,843,336 | | 410,075,752 | 410,075,752 | 0 | 410,075,752 |
| SUBTOTAL - Reinsurance | 2,387,789,998 | 0.0050 | 11,931,278 | 11,931,278 | 0 | 11,931,278 |
| TOTAL UNADJUSTED ASSET RISK | | | 921,651,741 | 901,079,616 | 0 | 901,079,616 |
| ANALYST'S MANUAL ADJUSTMENTS - Total C-1 | | | 0 | 0 | 0 | 0 |
| ADJUSTED ASSET RISK SUBJECT TO SOR FACTOR | | | 921,651,741 | 901,079,616 | 0 | 901,079,616 |
| Qualifying Assets for Spread of Risk (SOR) Lookup Table: | | | | | | |
| Invested Assets | 15,258,528,314 | | | | | |
| (Less) Affil. Common Stock | (166,219,791) | | | | | |
| Total Qualifying Assets | 15,083,656,424 | | | | | |
| ADJUSTED ASSET RISK SUBJECT TO SOR FACTOR | | | 921,651,741 | 901,079,616 | 0 | 901,079,616 |
| (LESS) Smaller of Affil. Common Stock or 95% of ASSET RISK | | | <u>(166,219,791)</u> | <u>(166,219,791)</u> | | |
| (PLUS) Smaller of Carry Value of Life Subs or Offset | | | 0 | 0 | | |
| TOTAL UNAFFILIATED ASSET RISK (Before SOR) | | | 755,431,950 | 734,859,825 | 0 | 734,859,825 |
| Spread of Risk (SOR) Factor - PERCENTAGE | | | 0.1778 | 0.1778 | 0 | 0.1778 |
| SPREAD OF RISK ADJUSTED C-1 ASSET RISK | | | 1,055,967,542 | 1,031,737,693 | 0 | 1,031,737,693 |
| C-1 ITEMS NOT SUBJECT TO SPREAD OF RISK CHARGE | | | | | | |
| DERIVATIVES | 0 | 0 - 1.0 | 0 | 0 | 0 | 0 |
| ANALYST'S MANUAL ADJUSTMENTS - Derivatives | | | 0 | 0 | 0 | 0 |
| TOTAL DERIVATIVE RISK | | | 0 | 0 | 0 | 0 |
| GRAND TOTAL: C-1 ASSET RISK | 1,055,967,542 | 1,031,737,693 | 0 | 1,031,737,693 | 0 | 1,031,737,693 |

A.M. Best's Capital Adequacy Ratio (BCAR) Model Abstract—2003 Data (continued)

| C-2 INSURANCE RISK | Annual Statement or Questionnaire Amount | RBC Factor | Gross RBC | Net/Adjusted RBC | |
|--|---|---|-------------------------------|----------------------------------|----------------------|
| MORTALITY | | | | | |
| | Statement Value = Gross Only | <= For Mortality only => | This column = Before Reins | This column = After Reins | |
| Ord. & Indust. Life In-Force | 4,401,384,577 | =0.0015 for 1st 500m, 0.0010 next 4500m, 0.00075 next 20000m, 0.0006 over 25000m | 4,651,385 | 522,938 | |
| Group & Credit Life In-Force | 419,835,294,884 | =0.0012 for 1st 500m, 0.0008 next 4500m, 0.0006 next 20000m, 0.0005 over 25000m | 213,599,193 | 207,523,223 | |
| Individual Accident & Health: | 17,910 | 0.25 - 0.45 for 1st 50m 0.07 - 0.20 thereafter | 2,149 | 2,149 | |
| Group Accident & Health: | 3,541,442,875 | 0.07 - 0.25 for 1st 50m 0.05 - 0.15 thereafter | 337,643,400 | 337,643,400 | |
| CREDIT | | | | | |
| EP: Credit Accident & Health | 0 | 0.1200 | 0 | 0 | |
| OTHER | | | | | |
| Premium Equiv-ASO/Stop Loss | 23,779,200,000 | 0.0050 | 118,896,000 | 118,896,000 | |
| Claim Liability | 745,160,251 | 0.0500 | 37,258,013 | 37,258,013 | |
| EP: Managed Care Credit | 283,403,611 | 0.2411 | (68,340,885) | | |
| Less: Credit Risk for provider contract arrangements | | | 12,558,583 | | |
| Net Managed Care Charge | | | | (55,782,302) | |
| Other | 17,673,901 | 0.30 for 1st 50m 0.18 thereafter | 5,302,170 | 5,302,170 | |
| SUBTOTAL - C-2 INSURANCE RISK | | | 661,614,300 | 651,365,591 | |
| ANALYST'S MANUAL ADJUSTMENTS - Total C-2 | | | 0 | 0 | |
| GRAND TOTAL: C-2 INSURANCE RISK | | | 661,614,300 | 651,365,591 | |
| C-3 INTEREST RATE RISK | Questionnaire Amt | Annual Stmt or Factor | RBC Gross RBC | Prem Freq./ Adjusted RBC | |
| General Account Annuities | 8,099,227,341 | 0.0075 - 0.035 | 117,126,435 | 118,835,628 | |
| Total Separate Account Annuities | 11,324,772,367 | 0.005 - 0.035 | 0 | 0 | |
| Total G/A and S/A Annuities | 19,423,999,707 | | 117,126,435 | 118,835,628 | |
| Life Insurance Reserves | 938,132,769 | 0.005 - 0.0075 | 6,690,250 | 6,690,250 | |
| (Less) Policy Loans | (8,652,098) | 0.0050 | (43,260) | (43,260) | |
| Net Life Insurance Reserves | 929,480,671 | | 6,646,990 | 6,646,990 | |
| SUB-TOTAL C-3: INTEREST RATE RISK | | | 123,773,425 | 125,482,618 | |
| ANALYST'S MANUAL ADJUSTMENTS - Total C-3 | | | | 0 | |
| GRAND TOTAL: C-3 INTEREST RATE RISK | | | 123,773,425 | 125,482,618 | |
| C-4 BUSINESS RISK | Annual Stmt or Questionnaire Amt | RBC Factor | Gross RBC | Single Largest/ Other Adjsmts | Adjusted RBC |
| Life & Annuity Premiums | 1,371,913,660 | 0.0300 | 41,157,410 | 0 | 41,157,410 |
| A&H Premiums (incl. HMO) | 3,481,667,724 | 0.0075 | 26,112,508 | 0 | 26,112,508 |
| Contingent Liabilities | 3,412,500 | 0.0150 | 51,188 | 0 | 51,188 |
| Separate Account Reserves | 11,324,772,371 | 0.0100 | 113,247,724 | N/A | |
| Less Separate Account Manual Adjustments | | | | 0 | |
| Net Separate Account Charges | | | | | 113,247,724 |
| SUB-TOTAL C-4 BUSINESS RISK | | | 180,568,830 | | 180,568,830 |
| ANALYST'S MANUAL ADJUSTMENTS - Total C-4 | | | | 0 | 0 |
| GRAND TOTAL: C-4 BUSINESS RISK | | | 180,568,830 | 0 | 180,568,830 |
| RISK BASED CAPITAL [Sq Root((C1 + C3)^2+(C2)^2)+C4] | | | 1,533,167,066 | 1,507,023,939 | 1,508,513,099 |

A.M. Best's Capital Adequacy Ratio (BCAR) Model Abstract—2003 Data (continued)

| CAPITAL & SURPLUS | Annual Statement or Questionnaire Amount | RBC Factor | | | Gross RBC | Net/Adjusted RBC |
|---|---|-----------------------|----------------------|----------------------|------------------|-----------------------------|
| ADJUSTED | | | | | | |
| Stmnt. Capital & Surplus | 1,752,785,306 | 1.0000 | 1,752,785,306 | 1,752,785,306 | 0 | 1,752,785,306 |
| AVR + Conditional Reserves | 466,149,669 | 1.0000 | 466,149,669 | 466,149,669 | 0 | 466,149,669 |
| Unearned Prem. Reserve @ 10% | 4,298,955 | 1.0000 | 0 | 4,298,955 | 0 | 4,298,955 |
| Dividend Payable | 11,528 | 0.5000 | 0 | 5,764 | 0 | 5,764 |
| Operating Losses | (56,895,216) | 1.0000 | 0 | (56,895,216) | 0 | (56,895,216) |
| IMR: Curr. Yr. Amortization | 6,541,102 | 1.0000 | 0 | 6,541,102 | 0 | 6,541,102 |
| Surplus Notes | 0 | 1.0000 | 0 | 0 | 0 | 0 |
| (-) Carry Value-Life Subs w/AVR | 0 | 1.0000 | 0 | 0 | 0 | 0 |
| Excess/(Deficiency) of Life Subs | 0 | 1.0000 | 0 | 0 | 0 | 0 |
| Derivatives-Off Balance Sheet Risk | 2,127,510 | 0.1000 | 0 | 212,751 | 0 | 212,751 |
| NET CAPITAL & SURPLUS | | | 2,218,934,975 | 2,173,098,331 | 0 | 2,173,098,331 |
| MANUAL ANALYST ADJUSTMENTS - Total Capital | | | | | 0 | 0 |
| ADJUSTED CAPITAL & SURPLUS | | | 2,218,934,975 | 2,173,098,331 | 0 | 2,173,098,331 |
| RBC RATIO (Total Adj. C&S to Risk Based Capital) | | | 145% | 144% | | 144% |
| Surplus Note Effect | | | | | | |
| RBC, excluding Surplus Notes as Capital & Surplus | | | 144% | | | |
| RBC, including Surplus Notes at Full Equity Credit | | | 144% | | | |

■ *Continued from Page 8*

Conclusion

At a time when many companies in the industry face declining levels of capital relative to their current ratings, management of that capital is an important issue. Industry tools to improve capital allocation 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 is one of those tools that assess a company's capital needs well beyond the needs of near-term 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 the standards embedded within its BCAR model, A.M. Best would expect that well-managed and highly rated companies will maintain capital levels in excess of the

minimum amounts required to support their current rating.

A.M. Best is quick to caution, however, that although BCAR is an important tool in the rating process, it isn't the sole basis 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 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.

A.M. Best believes that well-managed and highly rated life/health insurers must continue to focus on the fundamentals of building future economic value and financial stability, rather than on managing one, albeit important, component of their rating evaluations.



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