A.M. Best’s Updated Credit Rating Methodology and Capital Model

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A.M. Best Overview
A.M. Best Overview

- Established in 1899, pioneered the concept of insurer financial strength ratings in 1906.
- Provider of ratings, financial data, and news specific to the insurance industry.
- Multiple channels for obtaining public information from A.M. Best: www.ambest.com, daily and weekly newsletters, monthly publications, special technical reports, webinars, in-person appearances at industry events, annual publications.
- Coverage of approximately 3,500 companies in more than 80 countries.
- Only rating agency focused on the insurance industry:
  - Methodologies are specific to the insurance environment.
  - Analysts are industry specialists.
• **Financial Strength Rating (FSR)**
  
  • an independent opinion of an insurer’s financial strength and ability to meet its ongoing insurance policy and contract obligations.

• **Issuer Credit Rating (ICR)**
  
  • an independent opinion of an entity’s ability to meet its ongoing financial obligations.

• All ratings are forward looking in nature as indicated by an assigned outlook – Stable, Positive, Negative; or placed Under Review (with Positive, Negative, or Developing Implications).

• Ratings are composed of key areas covered with in the BCRM
# A.M. Best Rating Scale

<table>
<thead>
<tr>
<th>FSR</th>
<th>ICR</th>
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<tbody>
<tr>
<td>A++</td>
<td>aaa</td>
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<tr>
<td>A+</td>
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<tr>
<td>A</td>
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<td>a-</td>
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<tr>
<td>B++</td>
<td>bbb+</td>
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<tr>
<td>B+</td>
<td>bbb-</td>
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**FSR** = Financial Strength Rating  
**ICR** = Issuer Credit Rating

May 16, 2016
Revised Best’s Credit Rating Methodology (BCRM)
Impetus for Change

- Transparency & clarity
- Reorganization of the current criteria
- A way to integrate new tools
  - Application of BCAR
Tentative Timeline

03/10/16
Draft BCRM & PC BCAR criteria is released for comment

Comment period will include public updates as specific issues raised

Comment period will be extended to coincide with release of all BCAR models

12/31/16
Comment period ends

Comments incorporated as necessary into BCRM and all BCAR criteria

BCRM and BCAR criteria is published and becomes effective

Remainder of 2016

1Q 2017
An Updated BCRM

The BCRM will be the key source document for deriving ratings

- Issuer Credit Ratings
- Financial Strength Ratings
- Issue Ratings
An Updated BCRM

Not a fundamental change to rating analysis
An Updated BCRM

The BCRM is being updated but the fundamental rating drivers will remain the same

- Balance sheet strength
- Operating performance
- Business profile
- Enterprise risk management
Rating Implications

• BCRM is NOT a means to change ratings although some ratings may change
• Analyst will communicate any potential rating issues as they become apparent during comment period
• Ratings impacted will be placed under review at end of comment period
  – Need to be resolved within 6 months after under review
A.M. Best’s Rating Process

Country Risk

Balance Sheet Strength
Baseline (e.g., bbb+)

Operating Performance
(+2/-3)

Business Profile
(+/2)

Enterprise Risk Management
(+1/-4)

Comprehensive Adjustment
(+/1)

Rating Enhancement

Published Issuer Credit Rating
Balance sheet strength is now broken down into several parts

- Rating unit balance sheet strength assessment
  - BCAR
  - Other qualitative and quantitative factors
- Holding company impact assessment
- Country risk impact
Balance Sheet Strength

Impact of Operating Performance and Business Profile on Balance Sheet Strength

- Strong Operating Performance Builds Future Balance Sheet Strength
- Weak Operating Performance Erodes Future Balance Sheet Strength
- Strong Business Profile → Sustainable Operating Performance
- Weak Business Profile → Deteriorating Operating Performance
- Strong Business Profile → Improving Operating Performance
- Weak Business Profile → Sustained Operating Performance Weakness
Operating Performance

The BCRM is being updated but the fundamental rating drivers will remain the same

- Underwriting Performance
- Investment Performance
- Total Operating Earnings
- Prospective Financial Forecasts
- Other Considerations
  - Unique to LOB, region of operation, structure
• Benchmarks ensure operating performance metrics for each insurer are being evaluated in proper framework
• Can be created using:
  – Industry composites/sub-composites
  – ICR composites
  – Other customized parameters
• May be appropriate to compare a rating against multiple benchmarks
• Rating Committee has flexibility in determining the appropriate benchmark(s) for each rating unit
• Various insurance organizational types will have differing benchmarking metrics
The BCRM is being updated but the fundamental rating drivers will remain the same

- Product/Geographic Concentration
- Market Position
- Pricing Sophistication & Data Quality
- Product Risk
- Degree of Competition
- Investment Risk
- Management Quality
- Regulatory, Event & Market Risks
- Distribution Channels
The BCRM is being updated but the fundamental rating drivers will remain the same

- Product & Underwriting Risk
- Reserving Risk
- Concentration Risk
- Reinsurance Risk
- Financial Flexibility Risk
- Investment Risk
- Legislative/Regulatory/Judicial/Economic Risk
- Management Risk
- Operational Risk
- Risk Appetite/Stress Testing
Comprehensive Adjustment

• Evaluation of key rating factors includes parameters which place limits on any one factor
• Recognizes a truly uncommon strength/weakness that is not captured through the rating process
• Allows for additional weighting beyond the parameters noted in Balance Sheet Strength, Operating Performance, Business Profile and ERM
• A vast majority of ratings will not require a comprehensive adjustment
Rating Enhancement

- Non-lead rating units may be eligible for partial rating enhancement based on benefits it receives from being affiliated with the lead rating unit.
- Rating drag can also occur from negative impact of the lead rating unit on the non-lead unit.
- Benefit from explicit support – guarantees, reinsurance, and/or capital contributions.
- Can achieve the same level as the lead unit, but does not imply rating levels of the entities will more in lock-step.
The Building Block Approach

A.M. Best’s Rating Process

Country Risk

- Balance Sheet Strength
  - Baseline (e.g., bbb+)
- Operating Performance
  - (+2/-3)
- Business Profile
  - (+/-2)
- Enterprise Risk Management
  - (+1/-4)
- Comprehensive Adjustment
  - (+/-1)
- Rating Enhancement

Published Issuer Credit Rating

IASA NY/NJ  May 16, 2016
Updated Best’s Capital Adequacy Ratio (BCAR)
**Best’s Capital Adequacy Ratio (BCAR)** is a comprehensive quantitative tool that evaluates many of the risks to the balance sheet simultaneously and generates an overall estimate of the required level of capital to support those risks and compares it with available capital.

BCAR is a key tool in the assessment of balance sheet strength:

- Not the sole determinant of Balance Sheet Strength
- Not the sole determinant of the rating
Summary of Changes

More sophisticated and faster software available now

– Simulations / probability curves
– Correlations / diversification
– Company specific detail
– Economic scenario generators (ESGs)

• A computer model that randomly simulates thousands of possible values for a variety of economic and financial variables over a series of selected timeframes
• An ESG does not predict a path the economy will follow but instead produces a collection of possible paths including some that have not yet been observed
Summary of Changes

• Do not intend to change underlying view of the risks
• Do not intend to change the main risk categories of the models

Goals are to:
  – Generate risk factors using stochastic simulations from probability curves & ESG
  – Incorporate company specific detailed data from SRQ & statutory financial statements
Summary of Changes

- 5 scores calculated and published – instead of 1
  - 95%, 99%, 99.5%, 99.8%, and 99.9% confidence levels
- New Calculation of BCAR
  - Formula change
  - Difference between Available Capital and Required Capital, as a ratio to Available Capital
  - Better alignment with risk appetite/tolerance statements
Summary of Changes

- New Metric – VaR (Value at Risk)

VaR does not tell us about what’s in the tail so we need to look at more than one VaR.
**New Structure – PC BCAR**

**Available Capital (AC)**
- Reported Capital (PHS)
- Equity Adjustments:
  - Unearned Premiums (DAC)
  - Equalization/Contingency Reserves
  - Loss Reserves
- Assets
- Debt Adjustments:
  - Surplus Notes
  - Debt Service Requirements
- Other Adjustments:
  - Future Operating Losses
  - Potential Loss
  - Future Dividends
  - Goodwill & Other Intangible Assets
  - Minority Interests, etc.

**Net Required Capital**

**Gross Required Capital (GRC):**
- (B1) Fixed Income Securities
- (B2) Equity Securities
- (B3) Interest Rate
- (B4) Credit
- (B5) Loss and LAE Reserves
- (B6) Net Premiums Written
- (B7) Business Risk
- (B8) Potential Catastrophe Loss

**Covariance Adjustment**

**Net Required Capital (NRC)***

\[ *\text{NRC} = \sqrt{(B1)^2 + (B2)^2 + (B3)^2 + (0.5B4)^2 + ((0.5B4 + B5)^2 + B6)^2} + B7 + B8 \]

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**BCAR Ratio**

\[ \frac{\text{Available Capital (AC) - Net Required Capital (NRC)}}{\text{Available Capital (AC)}} \]

IASA NY/NJ May 16, 2016
Example of Impact to PC Model

Current PC BCAR Calculation (ratio to NRC)

Potential Scores:
Low of 0.0 to Max of 999.9
Wanted BCAR > 100.0

New PC BCAR Calculation (ratio to Available Capital)

Potential Scores:
Low of -999.9 to Max of 100.0
Want BCAR > 0.0
Example of Impact to PC Score

**Current PC BCAR Calculation (ratio to NRC)**

APHS (ex Potential Cat Losses) = $150M  
Potential Cat Losses = $30M  
NRC (ex Potential Cat Losses) = $80M  
BCAR = (150 – 30 ) / 80 = 120/80 = 150.0

**Planned PC BCAR Calculation (ratio to Available Capital)**

Available Capital (ex Potential Cat Losses) = $150M  
Potential Cat Losses = $30M  
NRC (ex Potential Cat Losses) = $80M  
NRC (incl Potential Cat Losses) = $110M  
BCAR = (150 – 110 ) / 150 = 40/150 = 26.7
Display of BCAR Scores

BCAR

- VaR 95: 36.7
- VaR 99: 26.7
- VaR 99.5: 16.7
- VaR 99.8: 6.7
- VaR 99.9: -3.3

IASA NY/NJ
May 16, 2016
Summary of Changes

• Bond Defaults
• Publicly Traded Common Stocks
• Other Asset Classes
• Interest Rate Risk
• Credit Risk – Reinsurance Recoverable Amounts
• Premium Risk
• Reserve Risk
Investment Risk

- **Fixed Income Securities – Default Risk**
  - Bonds
  - Mortgage Loans
  - Preferred Stocks
- **Equities – Market Value Volatility**
  - Publicly Traded Common Stocks
  - Real Estate
  - Schedule BA assets
- **Affiliated and Private investments** receive 100% risk charge
Interest Rate Risk

- Interest Rate Risk
  - Risk of having to sell fixed income assets when market values are lower
  - Exposure to a rise in interest rates over next one year
  - Liquidity risk during the upcoming year
  - Risk is driven by sudden shock event
- PC - Usually natural catastrophe, or man-made, could be economic
Credit Risk

- Credit Risk
  - Risk of default on:
    - Reinsurance recoverable amounts (recov on pd & unpd, ceded UPR)
  - Reinsurance Recoverable Charge:
    - Credit risk charge (ability to pay)
      - Reinsurer AMB issuer credit rating
      - Duration of recoverables
      - Uses stochastic simulation software and impairment table
  - Credit Risk Charges reduced for:
    - Recovery on default (50%)
    - Funds Held (100%)
    - Acceptable LOCs & Trusts (up to 90%)
    - Discounted to present value
  - Dispute Risk calculation remains
Reserve Risk

• Risk of unanticipated adverse development on net loss & loss-adjustment expense (LAE) reserves
• Reserve Risk Factors
  – Uses stochastic simulation software
    • probability distributions
    • correlation matrix
• Further adjustment to required capital for Excessive Growth
Premium Risk

• Risk that pricing of business written next year will be inadequate
  – Potential for Underwriting Loss on one more year’s worth of business
  – This is the one-year look forward in terms of adding additional exposure
  – Current year’s NWP used as proxy for next year

• Premium Risk Factors
  – Uses stochastic simulation software
    • probability distributions
    • correlation matrix

• Further adjustment to required capital for Excessive Growth
Business Risk

- Risks not reflected in balance sheet that may affect surplus
  - Contingent Liabilities
  - Non-controlled assets
  - Unfunded Pension & other post employment/retirement benefits
  - Separate Account Assets
  - Etc.

- Risk factors determined by analyst
- Use same required capital at all VaRs
Potential Catastrophe Loss

- **Natural Catastrophe**
  - Update *natural catastrophe* approach –
    - Per Occurrence
    - **Total all perils**
    - Measured at various VaR levels
    - **Risk added to Net Required Capital**
    - Will continue stress test approach
    - Reinstatement premium and Tax adjustments remain

- **Terrorism and other stress tests remain**
Catastrophe Stress Test

If a cat loss occurs, what would the BCAR scores look like?

1. Reduce Available Capital
   - 1-in-100 year Net PML from Per occurrence, Total all perils
   - Reinstatement premium and tax adjustments remain

2. Increase Recoverables by 40% of ceded loss
   - From 1-in-100 year PML from Per occurrence, Total all perils
   - Adjust credit risk factors if needed

3. Increase Net loss reserves by 40% of pretax net PML
   - From 1-in-100 year PML from Per occurrence, Total all perils

4. See how far BCAR scores drop at all confidence levels
Catastrophe Stress Test

How far did the curve shift down, is this a material drop, and how do you manage this drop?

Need to assess Financial Flexibility to determine impact.
Additional Resources

• Complete proposed methodology available on our website:

• Assigned analytical team

• A.M. Best staff attending industry events

• Webinars available for viewing at
  http://www.ambest.com/conferences/webinars.asp

• Email comments to:
  – methodology/commentary@ambest.com
Questions