

January 17, 2012

Additional Information

Criteria:

Assessing the Tail Risk of Sidecars

Tail Risk and the BCAR

Analytical Contact

Emmanuel Modu, Oldwick
+1 (908) 439-2200 Ext. 5356
Emmanuel.Modu@ambest.com

Rating Sidecars

Sidecar capacity is an attractive alternative to traditional retrocession during reinsurance market disruptions that result from major catastrophic losses, erosion of reinsurance capital and escalation in reinsurance rates-on-line. A sidecar is a limited-life, special-purpose entity that generally provides property catastrophe quota-share reinsurance exclusively to its sponsor. There have been several life/health-related sidecars, but the vehicles are used predominantly by property and casualty reinsurers. Sidecars provide a way to offer rated debt to investors seeking exposure to various layers of catastrophic risks.

In the past, A.M. Best has evaluated the capacity and creditworthiness of sidecars to determine, in general, whether sidecars will strengthen, weaken or have no effect on the financial strength ratings of the sponsoring reinsurers. The analysis focused on the structural integrity of the transactions and the analytical rigor applied by various experts and advisers, such as peril modelers and investment banks. In addition, A.M. Best goes one step farther to publish Issuer Credit Ratings and/or debt ratings, where appropriate, on all sidecars and their corresponding debt (if any). This methodology describes how A.M. Best assigns ratings to property and casualty sidecars.

Rating Assigned

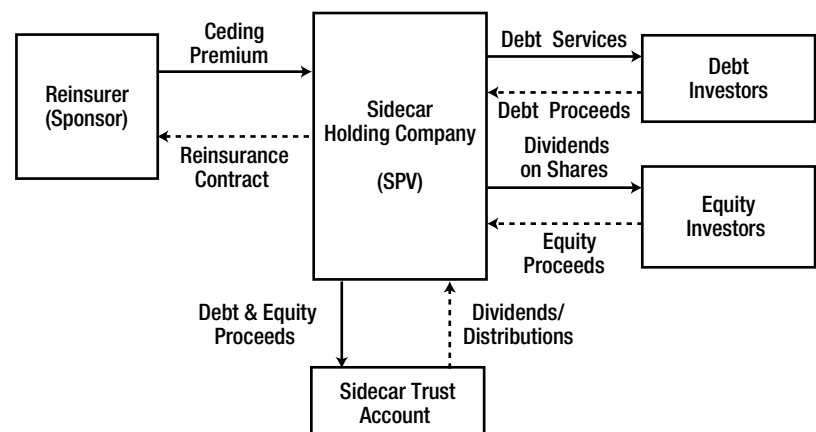
The ratings assigned are as follows: 1) Best's Long-Term Issuer Credit Rating (ICR), which is an opinion as to an issuer's ability to meet its ongoing senior financial obligations and, if the sidecar has issued debt, 2) Best's Debt Rating, which is an opinion as to the credit risk of a specific debt or debt-like security.

Key Rating Factors

In general, A.M. Best's sidecar rating methodology considers the risk characteristics of the underlying perils covered (as reflected in attachment probabilities); the reviews of the financial models used; and the results of stresses on key modeling parameters. Some of the items reviewed, evaluated or monitored include the following:

Exhibit 1

Simplified Sidecar Diagram:



This criteria report can be found at
www.ambest.com/ratings/methodology



- *Sidecar Sponsor.* The track record of the sponsor is of utmost importance in determining the viability of the sidecar.
 - *Data Quality.* The level of data quality is critical to the evaluation of the sidecar.
 - *Terms and Conditions.* Covenants in the quota-share agreement or other underwriting agreements will help determine whether the interests of the sidecar investors and the sponsoring reinsurer are aligned.
 - *Indemnifications and Carve-Outs.* The risks that the sponsoring company retains must be fully described.
 - *Documents.* Structural, regulatory, legal and all third-party related documentation are reviewed, although A.M. Best relies on the sponsor's advisers for proper interpretation of such documents.
 - *Collateralization.* The level and form of the collateral, including investment guidelines and the conditions for release of the collateral, are examined.
 - *Ongoing Risk Monitoring.* The mechanism by which ongoing risk monitoring will occur, thereby ensuring that A.M. Best can re-evaluate the credit risk of the sidecar on a timely basis, is examined.
 - *Management of Aggregate Risks.* This includes evaluating the correlation of risk layers.
 - *Degree of Peril Modeler Involvement.* A.M. Best has become aware that involvement of established peril modelers can range from simply making sure that the sponsors turn on the "right levers" on licensed software to actually modeling the peril and verifying data quality. Obviously, A.M. Best will have more confidence in transactions that are modeled independently (with data verification) than those that are all modeled in-house with little or no input from third-party peril modelers. A.M. Best views positively transactions modeled in-house with the watchful eyes of independent reinsurance brokers that are experienced users of the various peril models.
 - *Risk Analysis.* Exceedance probability curves, probability of attachment and exhaustion points should be provided.
- A.M. Best will ask for base and stressed exceedance probability curves.
- *Reserves.* The procedures for the establishment and liquidation (run-off) of reserves are examined.
 - *Key Assumptions on Business Profitability.* Specific assumptions used in modeling premiums and loss ratios earned/experienced by the sidecar, including assumed volatility of such premiums and loss ratios, are critical.
 - *Cash Flow Model.* Review of the cash flow model to understand the critical assumptions used in determining the profitability of the sidecar is an important element in the tail risk analysis.
 - *Profit Distribution.* Details on the circumstances under which profits can be withdrawn from the sidecar for distribution to investors (and the timing of such distributions) must be well defined.
 - *Business Origination.* This concerns the projected business origination (including breakout of retrocession business) and how monitoring will take place to alert A.M. Best to deviation from plan.
 - *Protected Cell Structure Mechanics.* If the sidecar has a protected cell structure, the structure and the limits of each cell are discussed, including whether each cell truly operates independently with its own capital to absorb losses up to predefined limits. Perils covered in individual cell structures are stressed more than those wholly contained in dedicated, special-purpose reinsurance vehicles.
 - *Operational Risks.* These involve the monitoring and record keeping needed to maintain the legal separation of the sidecar from the sponsoring insurance company.
 - *Advisers.* Tax and legal advisers are of particular concern.
 - *Reporting Requirements.* Examined are financial statements, procedures for reporting material events and exposure information.

The Assignment of a Rating

The rating assigned to catastrophe-linked securities or structures is based

Exhibit 2

Best's Idealized Default Matrix

Year	aa-	a+	a	a-	bbb+	bbb	bbb-	bb+	bb	bb-	b+	b	b-	ccc+	ccc	ccc-
1	0.05%	0.06%	0.11%	0.16%	0.21%	0.23%	0.27%	0.67%	1.20%	2.30%	2.81%	5.80%	7.61%	8.51%	9.41%	10.17%
2	0.23%	0.32%	0.44%	0.56%	0.67%	0.74%	0.89%	1.96%	3.26%	5.28%	7.30%	10.60%	14.35%	16.84%	18.22%	19.40%
3	0.42%	0.58%	0.76%	0.95%	1.13%	1.25%	1.51%	3.18%	5.23%	8.10%	11.46%	15.08%	20.60%	24.46%	26.23%	27.74%
4	0.62%	0.84%	1.08%	1.33%	1.58%	1.76%	2.13%	4.35%	7.11%	10.78%	15.33%	19.26%	26.37%	31.41%	33.48%	35.27%
5	0.84%	1.10%	1.41%	1.71%	2.02%	2.25%	2.75%	5.46%	8.91%	13.31%	18.90%	23.14%	31.69%	37.74%	40.05%	42.04%
	aa-	a+	a	a-	bbb+	bbb	bbb-	bb+	bb	bb-	b+	b	b-	ccc+	ccc	ccc-

on *Best's Idealized Default Matrix*. The matrix shows that for each debt rating, there is an associated cumulative default risk corresponding to the term of the debt being rated. As an example of how the table is used, assume that the annualized attachment probability of a bond issued by a sidecar is 0.503% for a three-year risk period. The cumulative attachment probability would be approximately 1.509% ($3 \times 0.503\% = 1.509\%$). Absent any other considerations (and stress scenarios on the modeling parameters), the bond would merit a rating of "bbb-", which is the

rating derived from the intersection of the third-year line in the matrix and the 1.51% default probability. Other considerations that may come into play in rating either a sidecar or its debt may include: the level of comfort A.M. Best has with the modeling of the peril; the stress on the attachment points (via the increase in peril frequency); stresses on loss ratios (depending on whether catastrophe or working-layer risks are being evaluated); the concept of "credit cliffs" with respect to catastrophe-linked securities or entities; zonal and leverage risk limits; and other factors.

Published by A.M. Best Company

Methodology

CHAIRMAN & PRESIDENT **Arthur Snyder III**

EXECUTIVE VICE PRESIDENT **Larry G. Mayewski**

EXECUTIVE VICE PRESIDENT **Paul C. Tinnirello**

SENIOR VICE PRESIDENTS **Manfred Nowacki, Matthew Mosher, Rita L. Tedesco**

**A.M. BEST COMPANY
WORLD HEADQUARTERS**

Ambest Road, Oldwick, N.J. 08858
Phone: +1 (908) 439-2200

NEWS BUREAU

830 National Press Building
529 14th Street N.W., Washington, D.C. 20045
Phone: +1 (202) 347-3090

**A.M. BEST EUROPE RATING SERVICES LTD.
A.M. BEST EUROPE INFORMATION SERVICES LTD.**

12 Arthur Street, 6th Floor, London, UK EC4R 9AB
Phone: +44 (0)20 7626-6264

A.M. BEST ASIA-PACIFIC LTD.

Unit 4004 Central Plaza, 18 Harbour Road, Wanchai, Hong Kong
Phone: +852 2827-3400



Copyright © 2012 by A.M. Best Company, Inc., Ambest Road, Oldwick, New Jersey 08858. ALL RIGHTS RESERVED. No part of this report or document may be distributed in any electronic form or by any means, or stored in a database or retrieval system, without the prior written permission of the A.M. Best Company. For additional details, see Terms of Use available at the A.M. Best Company Web site www.ambest.com.

Any and all ratings, opinions and information contained herein are provided "as is," without any expressed or implied warranty. A rating may be changed, suspended or withdrawn at any time for any reason at the sole discretion of A.M. Best.

A Best's Financial Strength Rating – Insurer is an independent opinion of an insurer's financial strength and ability to meet its ongoing insurance policy and contract obligations. It is based on a comprehensive quantitative and qualitative evaluation of a company's balance sheet strength, operating performance and business profile. The Financial Strength Rating opinion addresses the relative ability of an insurer to meet its ongoing insurance policy and contract obligations. These ratings are not a warranty of an insurer's current or future ability to meet contractual obligations. The rating is not assigned to specific insurance policies or contracts and does not address any other risk, including, but not limited to, an insurer's claims-payment policies or procedures; the ability of the insurer to dispute or deny claims payment on grounds of misrepresentation or fraud; or any specific liability contractually borne by the policy or contract holder. A Financial Strength Rating is not a recommendation to purchase, hold or terminate any insurance policy, contract or any other financial obligation issued by an insurer, nor does it address the suitability of any particular policy or contract for a specific purpose or purchaser.

A Best's Debt/Issuer Credit Rating is an opinion regarding the relative future credit risk of an entity, a credit commitment or a debt or debt-like security. It is 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. Credit risk is the risk that an entity may not meet its contractual, financial obligations as they come due. These credit ratings do not address any other risk, including but not limited to liquidity risk, market value risk or price volatility of rated securities. The rating is not a recommendation to buy, sell or hold any securities, insurance policies, contracts or any other financial obligations, nor does it address the suitability of any particular financial obligation for a specific purpose or purchaser.

In arriving at a rating decision, A.M. Best relies on third-party audited financial data and/or other information provided to it. While this information is believed to be reliable, A.M. Best does not independently verify the accuracy or reliability of the information.

A.M. Best does not offer consulting or advisory services. A.M. Best is not an Investment Adviser and does not offer investment advice of any kind, nor does the company or its Rating Analysts offer any form of structuring or financial advice. A.M. Best does not sell securities. A.M. Best is compensated for its interactive rating services. These rating fees can vary from US\$ 5,000 to US\$ 500,000. In addition, A.M. Best may receive compensation from rated entities for non-rating related services or products offered.

A.M. Best's special reports and any associated spreadsheet data are available, free of charge, to all *BestWeek* subscribers. On those reports, nonsubscribers can access an excerpt and purchase the full report and spreadsheet data. Special reports are available through our Web site at www.ambest.com/research or by calling Customer Service at (908) 439-2200, ext. 5742. Some special reports are offered to the general public at no cost.

For press inquiries or to contact the authors, please contact James Peavy at (908) 439-2200, ext. 5644.

SR-2011-M-350