August 24, 2023

Best's
Methodology and Criteria

Insurance-Linked Fund Ratings

Emmanuel Modu
908 882 2128
Emmanuel.Modu@ambest.com

Wai Tang
908 882 2388
Wai.Tang@ambest.com

Mira Laze
908 882 2003
Mira.Laze@ambest.com

AM BEST SINCE 1899 ®

Our Insight, Your Advantage™

Insurance-Linked Fund Ratings

Outline

A. Market Overview
B. Rating Considerations
C. The Assignment of a Rating

The following criteria procedure should be read in conjunction with *Best's Insurance-Linked Securities & Structures Methodology (BILSM)* and all other related BILSM-associated criteria procedures. The BILSM provides a comprehensive explanation of AM Best's rating process for insurance-linked securities and insurance-linked structures.

A. Market Overview

An AM Best Insurance-Linked Fund Rating (ILFR) is an opinion on an insurance-linked fund's (ILF) average credit quality and vulnerability to losses due to: 1) credit defaults in a portfolio constituted primarily of insurance-linked assets, and 2) the inability of the fund to fulfill specific and direct contract obligations associated with insurance-linked assets if such obligations exist.

ILFRs are fundamentally different from issue or issuer credit ratings because funds generally cannot default on obligations, since they essentially have investors who own shares and who can only participate in losses or gains associated with the funds. An ILFR does not guarantee the performance of the fund as expected by shareholders and does not make any statements about the net asset value shareholders should expect or the level of fees charged by a fund's manager.

Insurance-Linked Funds (ILFs) can consist of various insurance-linked assets and obligations such as: natural catastrophe bonds, industry loss warranties, extreme mortality bonds, surplus notes, trust-preferred securities, structured settlements (of both the period-certain and life-contingent varieties), ordinary annuities, life settlements, XXX/AXXX securities, collateralized debt obligations backed by insurance-related risks, and other insurance-linked assets, obligations and structured securities.

B. Rating Considerations

Parameters for Determining ILFRs

For most ILFs, AM Best's approach in determining ILFRs begins with determining the following parameters for the funds' holdings: 1) the probability of first dollar of loss, 2) fair value, and 3) the term to maturity.

Default/Attachment Probability Used

For certain risks in the insurance-linked universe, the probability of the first dollar of loss is generally referred to as the "attachment probability" attributed to an exposure. Catastrophe risks, for example,

Copyright © 2023 A.M. Best Company, Inc. and/or its affiliates. ALL RIGHTS RESERVED. No portion of this content may be reproduced, distributed, or stored in a database or retrieval system, or transmitted in any form or by any means without the prior written permission of AM Best. While the content was obtained from sources believed to be reliable, its accuracy is not guaranteed. For additional details, refer to our Terms of Use available at the AM Best website: Terms of use.

can be assigned attachment probabilities that directly reflect the probability of the first dollar of loss. Attachment probabilities also can be assigned to risks associated with other property/casualty lines of business, collateralized reinsurance and mortality/morbidity risks. An example of attachment probabilities is that some extreme mortality risks are modeled to determine the probability of exceeding specific mortality thresholds. For other risks in the insurance-linked universe, the probability of first dollar of loss is equivalent to the probability of default associated with rated securities. An example is an asset-backed securities transaction collateralized by structured settlements. Absent other considerations, the assumed default probability for purposes of determining ILFRs would be the default rate that corresponds to the rating of the securities and the expected maturity of the securities based on *Best's Idealized Issue Default Matrix* found in *Best's Insurance-Linked Securities and Structures Methodology* (BILSM).

The source of information for the default probability or the attachment probability of an individual ILF holding depends on the type of holding for which credit risk is being assessed. Described below are the various broad risk categories and the source of the probability of attachment or default for each category:

1. **Obligation With Credit Profile Strongly Linked To Insurance Carrier**
   If the fund holding is a direct issue of an insurance company or has a credit profile very closely linked to a carrier's issuer credit rating (ICR), the default probability associated with the carrier will be assigned to the holding. Examples of fund holdings that fall in this category include, but are not limited to, the following: funding agreements; guaranteed investment contracts; life settlements; cash value of policies held by insurance carriers; commission payments by insurance carriers; structured settlements; ordinary annuities; surplus notes; and trust-preferred securities. In these instances, AM Best will use the default probability associated with the issuing insurance companies in its evaluation of a fund's ILFR. The applicable default probabilities of insurance carriers can be found in *Best's Idealized Issuer Default Matrix* found in BILSM.

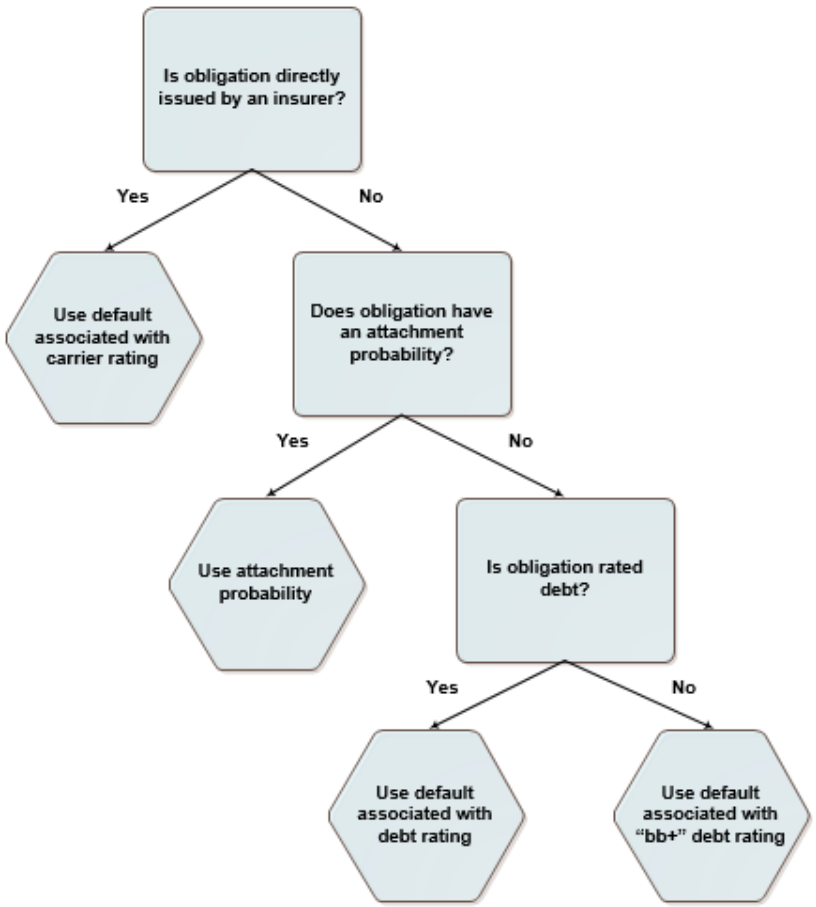
2. **Rated Obligation Without a Modeled Attachment Probability**
   If the fund holding consists of rated debt without an attachment point or default probability determined by a modeler, AM Best will use the corresponding issuer default probability associated with the legal maturity of the debt or the expected maturity (if the obligation is a structured security) from *Best's Idealized Issue Default Matrix* found in BILSM. A rated asset-backed security collateralized by structured settlements is an example of a rated obligation without an explicit associated attachment probability determined by a modeler.

3. **Rated or Unrated Obligation With Associated Attachment Probability Produced With a Peril Model**
   If the fund holding consists of rated or unrated debt with an attachment probability determined by a modeler, AM Best will use the attachment probability in its evaluation of the fund's ILFR. Examples of rated obligations with associated attachment probabilities include

catastrophe bonds and sidecar debt. Unrated obligations with associated attachment probabilities can include unrated catastrophe bonds, industry loss warranties (ILWs), collateralized reinsurance programs and other reinsurance-linked contracts. AM Best will use the attachment probability as calculated by a peril modeler or a fund manager for fund holdings in this category.

As more insurance-linked asset classes are created, AM Best will determine the source of the default or attachment probabilities to be used in its calculation of the ILFR. **Exhibit B.1** displays the decision tree for determining default or attachment probabilities based on the nature of the fund holding in question.

Exhibit B.1: Determining Default/Attachment Probabilities



Fair Value of Assets and Liabilities

For purposes of this criteria procedure, fair value is the price that would be received to sell an asset or paid to transfer liability in an orderly transaction between market participants at a given time. It is an important input in determining the proportion of an overall fund value attributable to categories of fund holdings.

The availability of valuation methodologies and observable inputs can change depending on whether the investment being valued is new to the marketplace. If the fair value of an instrument is based on models and outputs that are not readily observable, the determination of fair value requires more judgment. Asset managers generally classify fair value in three categories that indicate an increasing level of certainty as to how much can be realized for selling an asset or transferring a liability:

- Level 1 Fair Values usually are associated with assets and liabilities that have quoted prices available in an active market. Blue-chip corporate bonds, for example, are likely to be characterized as Level 1 assets.
- Level 2 Fair Values usually are associated with quoted asset and liability prices in markets that are not very active or for which all significant inputs are observable either directly or indirectly.
- Level 3 Fair Values are based on inputs that are unobservable and significant to the overall fair-value measurement. Catastrophe bonds and life settlements, for example, are likely to be characterized as Level 3 assets.

AM Best expects that a large majority of fund holdings linked to insurance contracts or assets will fall in the Level 2 and 3 categories. AM Best will accept the fair value assumed by an insurance-linked fund on a given measurement date as long as the basis of the valuation is given, significant inputs and models are identified, and the fund identifies the level category associated with the asset being evaluated.

Term to Maturity

The term to be applied to individual holdings of an ILF to determine an ILFR depends on the nature of the holdings. Where ILS holdings have a remaining legal maturity less than or equal to five years, AM Best uses those terms as the remaining legal maturity of the holdings. For asset-backed securities transactions, AM Best assumes that the term is the expected maturity of the securities. For mortality-related assets that are direct issues of insurance companies (such as life settlements and life-contingent structured settlements), the term used in the ILFR calculation is the life expectancy of the individual assets. The assumed term for assets with very long tails, such as period-certain structured settlements, is the duration calculated using either the discount rate applied by the fund manager in calculating fair value, or the current market rate for the asset being evaluated. As more varieties of insurance-linked holdings emerge, AM Best will review these on a case by case basis and determine the maturity necessary for calculating the ILFR.

Determination of ILFRs for Various Fund Holdings

This section discusses the special nature of certain types of fund assets and how ILFRs of the funds that hold these assets are determined. First, an example of how the ILFR of a bond or note portfolio is evaluated and scored is provided. This is the backdrop for discussing some special features of other types of fund holdings such as life settlements, structured settlements and holdings related to

catastrophic events. **Exhibit B.2** shows the various types of assets expected in current ILS funds and their characteristics, and it should be used as a general guide for the assumptions in determining ILFRs.

Exhibit B.2: Types of Assets Expected in Current ILS Fund

Type of Security Risk	Credit Assessment Used	Primary Source of Credit Assessment	Determination of Proportion of Entire Fund for Risk Allocation	Term to Maturity
• Surplus Notes/ Trust Preferred Securities • Funding Aggreements • Guaranteed Investment Contracts • Insurance Commissions • Traditional Premium Finance Loans Backed by Life Insurance Cash Value & Other Assets	Insurer default probability or default associated with issue rating	AM Best	Fair value or Face Value	Legal Maturity
• Structured Settlements • Ordinary Annuities	Insurer default probability	AM Best	Fair value	Life expectancy for life-contigent annuity; duration for period-certain annuity
• Life Settlements	Insurer default probability and inability to fulfill contractual obligation of paying sufficient premiums to keep policies in force	AM Best as determined by criteria and proprietary model	Fair value	Life expectancy
• Industry Loss Warranties & Other Derivative Instruments • Collateralized Reinsurance • Natual Catastrophe Bonds • Extreme Mortality Bonds	Modeled attachment probability	Fund manager as determined by use of third-party models or other specified models/ methods	Fair value or collateralized insurance coverage	Legal Maturity
• XXX/AXXX Securitization • Embedded Value Securitization	Insurer default probabilty or default associated with issue rating	Fund or AM Best	Fair value or Face value	Expected Maturity
• Structured Securities	Default associated with issue rating	Fund	Fair value or Face value	Expected Maturity

ILFR of Bond/Note Portfolio

In most cases, the fund manager provides the attachment/default probability, legal maturity (or expected maturity for structured securities), rating and fair value for each fund holding. This information is used in determining the fund's overall credit profile. As an example of how AM Best approaches the rating of an ILF, assume a fund contains just 3 assets:

1. A surplus note, unrated by AM Best, issued by an insurance carrier with an Issuer Credit Rating (ICR) of "a", legal maturity of 15 years and fair value of $10 million.
2. A three-year natural catastrophe bond rated "bb+" by AM Best with a cumulative attachment probability of 3.0% over three years and fair value of $5 million.
3. An insurance-related collateralized debt obligation rated "bbb-" by AM Best with expected maturity of six years and fair value of $10 million.

Asset 1, the 15-year surplus note, is a direct issue of an insurance carrier, so AM Best assumes that its default probability is equal to the default probability of the issuing insurance carrier, which is rated "a" by AM Best. The default probability of an "a" carrier is 6.88% as shown in *Best's Idealized Issuer Default Matrix* in BILSM on the 15-year line of the "a" rating.

For Asset 2, the attachment probability of the 3-year catastrophe bond is 3.0%. In this case, the rating is not relevant as only the attachment probability is needed to determine the aggregate credit profile of the ILF.

For Asset 3, the default probability of the collateralized debt obligation rated "bbb-" by AM Best with a 6-year expected maturity is 3.20% as shown in *Best's Idealized Issue Default Matrix* in BILSM, as the intersection between the 6-year line and the "bbb-" column.

Exhibit B.3 displays the characteristics of the three assets, as well as the weighted average default/attachment probability and weighted average maturity of the portfolio.

Exhibit B.3: A Portfolio of Three Assets

	Asset Type	Rating	Portion of Fair Value	Default/Attachment Probability	Maturity Profile (Years)
Asset #1	Surplus Note	NA	40%	6.88%	15
Asset #2	Rated Catastrophe Bond	"bb+"	20%	3.00%	3
Asset #3	CDO	"bbb-"	40%	3.20%	6
			Weighted Average	**4.63%**	**9**

The ILFR for a portfolio of the three assets in **Exhibit B.2** before considering qualitative factors can be found in **Exhibit B.4**. The Unadjusted Fund Credit Rating (UFCR) for the example is determined by finding the rating that most closely corresponds to a 4.63% weighted average default/attachment probability and a 9-year term within Term Category 3. Therefore, the UFCR for the portfolio in this example is in the "bbb" range. The ILFR is the UFCR after making qualitative adjustments as discussed later in this document.

Exhibit B.4: Unadjusted Fund Credit Rating Matrix

		Weighted Average Attachment/Default Probability by Rating Level (%)								
Term Category	Maturity	aaa(f)	aa(f)	a(f)	bbb(f)	bb(f)	b(f)	ccc(f)	cc(f)	c(f)
1	<=1yr	0.03	0.13	0.21	0.42	1.52	4.70	14.30	19.83	25.28
2	>1yr, <=5yrs	0.11	0.33	0.65	1.55	5.94	12.70	20.83	28.29	34.29
3	>5yrs, <=10yrs	0.30	0.69	1.68	4.75	16.65	31.40	44.13	49.89	51.93
4	>10yrs, <=15yrs	0.61	1.19	2.95	7.26	23.82	47.36	61.30	68.31	70.07
5	>15yrs, <=20yrs	0.68	1.47	3.74	8.90	28.13	54.02	67.60	73.97	75.55

Please note that the ratings from "aa(f)" to "ccc(f)" may be enhanced with a modifier of "+" (plus) or "-" (minus) to indicate whether credit quality is near the top or bottom of a category. In this example, the weighted average attachment/default probability of 4.63% is close to the "bbb(f)" Category 3

threshold of 4.75%, but much less than the "bb(f)" Category 3 threshold of 16.65% in **Exhibit B.4**. It would be reasonable to assign an UFCR of "bbb-(f)" to the fund in this instance because of the presence of the speculative catastrophe bond, which can default quickly with no warning given the binary nature of catastrophe risk.

ILFR of Life Settlement Portfolio

The ILFR for life settlement funds presents some special challenges because it considers the aggregate credit profile of the funds as well as the adequacy of the reserve fund and liquidity facility levels to keep the insurance policies in force.

The determination of an ILFR for a life settlement fund involves a four-step process:

1. **Calculating the Aggregate Credit Profile**
   Calculating the general credit profile of the fund based on the insurer credit rating and the life expectancy for each life settlement.
2. **Simulating the Probability of a Premium Shortfall Without Carrier Defaults**
   Determining, through simulation, the probability of not being able to make all premium payments to keep all policies in force based on the aggregate life expectancy of the fund, with insurance carrier defaults turned off in the simulation.
3. **Simulating Probability of Premium Shortfall With Carrier Defaults and No Recoveries**
   Determining, through simulation, the probability of not being able to make all premium payments to keep all policies in force based on the aggregate life expectancy of the fund. In this simulation, defaults are turned on, recoveries after defaults are set to zero, and premiums cease for life settlements backed by defaulted carriers.
4. **Selecting the Worst Scenario**
   Determining the UFCR based on the highest probability of default or lowest credit profile calculated in steps 1 to 3.

Calculating the Aggregate Credit Profile

Based on the assumptions regarding the efficacy of the underwriting of life settlements, AM Best will determine the life expectancy for each life in the fund. As described in the criteria, the life expectancy is the time it takes for approximately 50% of the death benefits to be realized for any given life when mortality is applied on a probabilistic basis. Given life expectancy, death benefit and insurance carrier rating associated with each life settlement; AM Best constructs the weighted average portfolio credit quality. As an example, assume a portfolio of five life settlements with the characteristics as shown in **Exhibit B.5**.

Column 5 in **Exhibit B.5** represents the life expectancy based on the parameters such as mortality rating and the mortality rates associated with each life. Column 6 in **Exhibit B.5**, the carrier default, is derived from *Best's Idealized Issuer Default Matrix*. For example, Life Settlement #1, with a life expectancy of seven years and a carrier rating of "aa", has an associated default probability of 0.89%,

as can be found in **Exhibit B.5**. The weighted average carrier default for the portfolio in this example is calculated to be approximately 2.77%.

Exhibit B.5: Life Settlements

(1) Life Settlement	(2) Insurance Carrier	(3) Carrier Credit Rating	(4) Death Benefit (USD Millions)	(5) Life Expectancy (Years)	(6) Carrier Default Associated With Life Expectancy
#1	Carrier #1	aa	5	7	0.89%
#2	Carrier #2	a+	3	6	2.00%
#3	Carrier #3	a	4	10	4.50%
#4	Carrier #4	a	1	5	2.18%
#5	Carrier #5	a-	2	10	5.48%
			Weighted Average	**8**	**2.77%**

Probability of Premium Shortfall With No Carrier Defaults

The portfolio of life settlements is simulated to observe the likelihood of experiencing any shortfall in cash necessary to pay premiums on all the life settlements when due. AM Best assumes that carrier defaults do not apply in this scenario. In summary, AM Best applies the mortality ratings issued by medical underwriters to the mortality rate assumed for each life in the life settlement pool. As individuals die, death benefits are collected and premium payments cease. Premiums for each life continue as long as the individual backed by the life settlement is alive.

In the simulation process, AM Best counts how many times there is a shortfall in required premiums at a term equivalent to the aggregate life expectancy of the portfolio of life settlements. For example, in 1,000 simulations, it may emerge that within eight years (which is approximately the portfolio life expectancy calculated in the example), there are 50 times in which the net cash generated by the transaction is insufficient to pay premiums on all the life settlements. This translates to a failure rate of 5% (50/1,000). Thus, there is a 5% probability of missing any premium payments because of: 1) insufficient mortalities or 2) inadequate premium reserves.

Probability of Premium Shortfall With Carrier Defaults

As in the previous section, the portfolio of life settlements is simulated to determine the likelihood of experiencing any shortfall in cash necessary to pay premiums on all the life settlements when due. For this calculation however, AM Best assumes that carrier defaults apply and that there are no recoveries on death benefits after carrier defaults. In addition, once a carrier defaults, AM Best assumes that the premium associated with the life settlement backed by the carrier is no longer paid.

In the simulation process, AM Best counts how many times there is a shortfall in premiums due to insufficient mortality events, insufficient premium reserves or default of insurance carriers. If there

are 55 such shortfalls in 1,000 simulations, this amounts to a 5.5% failure rate. Thus, the probability of missing any premium payments because of: 1) insufficient mortalities, 2) inadequate premium reserves or 3) default of insurance carriers is 5.5%.

Selecting the Highest Failure Rate

AM Best will select the highest failure or default rate in the three scenarios outlined above. In the example used here, the highest failure or default rate is 5.50% over eight years. Absent any stresses or other considerations in the rating process, this would amount to an UFCR within the "bbb(f)" category as determined by the table in **Exhibit B.4**.

Given AM Best's experience with life settlement portfolios, the expected default rate or failure rate from highest to lowest would be in the following order for most portfolios:

a. Probability of any premium shortfall with carrier defaults and no recoveries
b. Probability of any premium shortfall with no carrier defaults
c. Average portfolio default rate calculated using the aggregate credit profile method

This order of default or failure rate may not hold for all portfolios. For example, consider a case in which a fund holds full premium reserves sufficient to pay all premiums up to the aggregate life expectancy. In this example, the only risk measured at the term equivalent to the portfolio's aggregate life expectancy would be approximately equivalent to the aggregate credit risk of the portfolio, since the uncertainty of maintaining the policies in force due to insufficient premiums effectively has been removed. Thus item b (which reflects the probability of premium shortfalls with no carrier defaults) in the list above may actually have a lower failure rate profile than the default rate in item c which reflects the aggregate credit risk of the portfolio based on the outlined tabulation methodology.

Because the ILFR for a fund consisting primarily of life settlements generally depends more on the ability to keep policies in force, AM Best pays particular attention to: 1) the frequency and amount of cash flow transfers to investors, 2) the level of premium reserves given various stress scenarios associated with mortality, 3) the liquidity and credit quality of the premium reserves, 4) any liquidity facility in place and the credit profile of its provider, 5) the extent to which the fund can easily and quickly access the premium reserve or the liquidity facility, 6) the mechanism by which the fund repays any advances from the liquidity facility, and 7) the general fund structure (including any encumbrance of fund assets) and seniority of premium payments required to keep all policies in force relative to paying other expenses incurred by the fund.

A life settlement fund may enter into a swap or derivative contract to set a floor for the mortality over a specific period. In this case, AM Best may limit the credit rating of the fund to the rating of the swap or derivative counterparty, depending on the level of protection afforded to the fund and the details of the insurance coverage.

ILFR of Structured Settlements

The ILFR of a portfolio of structured settlements is tied to its weighted average default probability. For life-contingent structured settlements, the analysis is similar to the calculation of aggregate credit

profile for life settlements. Each structured settlement life expectancy is calculated and its fair value is weighted by the default probability commensurate with the insurance carrier's rating and the life expectancy of the individual covered by the structured settlement. For period-certain structured settlements, the term used in the calculation of the fund's weighted average default probability is the duration of the cash flows. The duration calculation uses the same discount rate applied by the fund manager in determining the fair value of each structured settlement. Given the fair value, the duration and the carrier default probability for each structured settlement, the UFCR can be determined based on **Exhibit B.4**.

ILFR of Reinsurance Risk Transfer Portfolios

The ILFR of collateralized reinsurance programs, industry loss warranties, sidecars, and catastrophe bonds depends on the attachment probability of the natural catastrophe occurring and the likelihood that components of the collateral will default. AM Best expects the collateral in such transactions to be of the highest credit quality, so it may not contribute much to the credit risk tabulation of the collateralized reinsurance. However, AM Best will need information about the collateral and whether there are any swaps involved to maintain its value. The fair value, term and attachment point of the individual holdings in the transaction are used in determining the ILFR for the transaction.

AM Best expects the aggregate credit profile of the assets in funds that invest primarily in natural catastrophe risk to be below investment grade for the following reasons: 1) the individual credit profile of the fund components as measured by the first dollar of loss most likely will be below investment grade, and 2) the correlation among fund holdings likely will be high, since diversification is hard to achieve with natural catastrophe risk.

It is important to note that the ILFs that operate at or near "working layers" with high attachment probabilities may in fact compensate investors for the risks they are bearing, but AM Best only uses attachment/default probabilities in its analysis, not expected losses or premiums paid to the funds for undertaking such risks. For natural catastrophe funds, adjunct measures such as loss volatility or premiums compared with expected losses may be more appropriate and useful for investors.

Because the results of attachment probability calculations can vary greatly depending on what options are activated in peril models, AM Best expects any information it receives about modeled attachment probabilities to include activation of the following options:

- Warm sea-surface temperature condition and storm surge modeling for wind exposures
- "Fire following" for earthquake exposures
- Demand surge conditions (which considers the increase in replacement cost)
- Secondary uncertainties to reflect the volatility around mean loss numbers

Qualitative Issues

While the UFCR as shown in **Exhibit B.3** is a significant part of the process for determining an ILFR, AM Best may exercise broad discretion in the rating assignment by issuing ratings outside of the range

suggested by the UFCR. Conditions under which AM Best may exercise such discretion include, but are not limited to, the following events or states which may introduce instability in the rating process:

Excessive Defaults

Actual fund defaults may exceed the defaults expected over a given period. For example, if a portfolio of unrated, 10-year surplus notes is newly issued by carriers with ICRs of "a-", AM Best would expect defaults over the next three years to be no more than approximately 1.56%. Therefore, if in the third year the actual cumulative default is 5%, AM Best would be more likely to assign a lower rating than is suggested by the UFCR Matrix.

Lumpy Portfolio

The portfolio of fund holdings may exhibit a bimodal rating characteristic with extreme rating dispersions. While the average rating of the fund may be at a specific ILFR level, the distribution of the ratings, if lumpy, can be problematic in the event of a downgrade because of concentrations in extreme regions of the credit rating spectrum.

Historical Volatility of the UFCR

If the UFCR exhibits excessive volatility from period to period, AM Best is likely to issue a more conservative ILFR than would have been issued under more stable circumstances.

Ramp-Up or Wind-Down Risk

A closed-end fund that is still going through the ramp-up or wind-down process is likely to have big fluctuations in its UFCR. AM Best will look to the fund guidelines to determine the steady-state investment risks for ramp-ups and to determine the wind-down sequence that fund managers should follow in order to determine the level of conservatism to be applied to the fund's rating.

Risk Concentration in Natural Catastrophes

Concentration in insurance-linked investments such as those related to natural catastrophes, which can affect multiple geographic zones, exposes the fund to the possibility of sudden and total loss. This may require additional stresses on loss scenarios depending on diversity and dispersion of risks.

Currency Risk

Once the functional currency of the fund has been identified, it is up to the fund managers to hedge exposures caused by premiums, collateral and other investments held in other currencies. Substantial unhedged currency exposure may cause AM Best to issue a lower ILFR.

Hedge Positions

While fund managers can sell protection to insurers or other entities for exposures such as catastrophe risk, they also can buy protection to hedge their own exposures. In determining the effect of the hedge position, AM Best expects that the index for the hedge would be the same as the index for the protection sold by the fund. Furthermore, AM Best expects to analyze the extent to which the hedge position correlates negatively with the position being hedged and ultimately, how the hedge reduces the attachment point or risk of such a position.

The buying of protection without an underlying position does not improve the credit position of the fund.

Counterparty Risk

Any contracts entered into with other counterparties may affect the fund's credit profile, depending on the rating of such counterparties and the extent of the protection, hedge or services they are providing to the fund.

C. The Assignment of a Rating

AM Best determines an ILFR rating by first arriving at a weighted average default probability for each asset class in the fund and then compares that to the attachment/default probability for the appropriate maturity period in the UFCR Matrix (Exhibit B.4). Following this determination, AM Best will consider the other qualitative factors previously discussed in this criteria to arrive at a rating.

Surveillance/Monitoring Activities

The range of holdings of ILS funds can be broad. The generic information requirement that cuts across all ILS fund holdings includes, but is not limited to, the following:

- Fund formation document that clearly outlines investment, liquidation and substitution guidelines
- All agreements with third parties, including liquidity and reinsurance agreements
- Par value of each contract/security
- Fair Value of each current contract/security and the identification of the Fair Value level category
- Current attachment probability for each security/contract if available
- Any revised views on attachment probability from peril modelers or fund managers
- Current rating (if any) of each security from any of the Nationally Recognized Statistical Rating Organizations that maintain ratings, if available
- CUSIP number, if available
- Remaining maturity per contract or security
- Expected maturity per contract or security
- Servicing fees directly associated with specific fund holdings, if any
- Changes in operations and investment policies
- Changes in senior management, board of directors, counterparties, or service providers
- Updates on related mergers and acquisitions
- Redemption or subscription activities that differ from normal fund procedures
- Audit reports

Specific requirements for mortality-related fund holdings and long-dated assets should include:

- Any current and new assessment of mortality by underwriters (for life settlements and life contingent structured settlements)
- Report from independent actuary on adequacy of premium optimization, if any, for life settlements
- Discount rates used in determining the fair value of structured settlements, life settlements and other long-dated assets
- Identification of base mortality tables used to determine fair value

AM Best expects to review the portfolio holdings information on a quarterly basis, where applicable. AM Best also expects a periodic Risk Analysis Report that includes discussions on loss activities or events associated with each contract/security, changes in the fund's current or potential risk profile, stress testing analysis, and asset allocation strategy, which may impact the ILF's credit profile.

Insurance-Linked Fund Ratings

Definition of Insurance-Linked Fund Ratings*

aaa(f)
Assigned to funds that in AM Best's opinion are exceptional with regard to aggregate credit quality and capacity to fulfill contract obligations directly related to the portfolio holdings.

aa(f)
Assigned to funds that in AM Best's opinion are very strong with regard to aggregate credit quality and capacity to fulfill contract obligations directly related to the portfolio holdings.

a(f)
Assigned to funds that in AM Best's opinion are strong with regard to aggregate credit quality and capacity to fulfill contract obligations directly related to the portfolio holdings.

bbb(f)
Assigned to funds that in AM Best's opinion are adequate with regard to aggregate credit quality and capacity to fulfill contract obligations directly related to the portfolio holdings.

bb(f)
Assigned to funds that in AM Best's opinion are speculative with regard to aggregate credit quality and capacity to fulfill contract obligations directly related to the portfolio holdings.

b(f)
Assigned to funds that in AM Best's opinion are very speculative with regard to aggregate credit quality and capacity to fulfill contract obligations directly related to the portfolio holdings.

ccc(f), cc(f), c(f)
Assigned to funds that in AM Best's opinion are extremely speculative with regard to aggregate credit quality and capacity to fulfill contract obligations directly related to the portfolio holdings.

** Ratings from "aa(f)" to "ccc(f)" may be enhanced with a modifier of "+" (plus) or "-" (minus) to indicate whether credit quality is near the top or bottom of a category.*

Published by A.M. Best Rating Services, Inc.

METHODOLOGY AND CRITERIA

A.M. Best Rating Services, Inc.
Oldwick, NJ
PRESIDENT & CEO **Matthew C. Mosher**
EXECUTIVE VICE PRESIDENT & COO **James Gillard**
EXECUTIVE VICE PRESIDENT & CSO **Andrea Keenan**
SENIOR MANAGING DIRECTORS **Edward H. Easop, Stefan W. Holzberger, James F. Snee**

AMERICAS

WORLD HEADQUARTERS
A.M. Best Company, Inc.
A.M. Best Rating Services, Inc.
1 Ambest Road, Oldwick, NJ 08858
Phone: +1 908 439 2200

MEXICO CITY
A.M. Best América Latina, S.A. de C.V.
Av. Paseo de la Reforma 412, Piso 23,
Col. Juárez, Alcadía Cuauhtémoc, C.P. 06600, México, D.F.
Phone: +52 55 1102 2720

EUROPE, MIDDLE EAST & AFRICA (EMEA)

LONDON
A.M. Best Europe - Information Services Ltd.
A.M. Best Europe - Rating Services Ltd.
12 Arthur Street, 8th Floor, London, UK EC4R 9AB
Phone: +44 20 7626 6264

AMSTERDAM
A.M. Best (EU) Rating Services B.V.
NoMA House, Gustav Mahlerlaan 1212, 1081 LA Amsterdam, Netherlands
Phone: +31 20 308 5420

DUBAI*
A.M. Best - MENA, South & Central Asia*
Office 102, Tower 2, Currency House, DIFC
P.O. Box 506617, Dubai, UAE
Phone: +971 4375 2780
*Regulated by the DFSA as a Representative Office

ASIA-PACIFIC

HONG KONG
A.M. Best Asia-Pacific Ltd
Unit 4004 Central Plaza, 18 Harbour Road, Wanchai, Hong Kong
Phone: +852 2827 3400

SINGAPORE
A.M. Best Asia-Pacific (Singapore) Pte. Ltd
6 Battery Road, #39-04, Singapore
Phone: +65 6303 5000

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 Credit 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).

Best's National Scale Rating (NSR): a relative measure of creditworthiness in a specific local jurisdiction that is issued on a long-term basis and derived exclusively by mapping the NSR from a corresponding global ICR using a transition chart.

Rating Disclosure: Use and Limitations

A Best's Credit Rating (BCR) is a forward-looking independent and objective opinion regarding an insurer's, issuer's or financial obligation's relative creditworthiness. The opinion represents a comprehensive analysis consisting of a quantitative and qualitative evaluation of balance sheet strength, operating performance, business profile, and enterprise risk management or, where appropriate, the specific nature and details of a security. Because a BCR is a forward-looking opinion as of the date it is released, it cannot be considered as a fact or guarantee of future credit quality and therefore cannot be described as accurate or inaccurate. A BCR is a relative measure of risk that implies credit quality and is assigned using a scale with a defined population of categories and notches. Entities or obligations assigned the same BCR symbol developed using the same scale, should not be viewed as completely identical in terms of credit quality. Alternatively, they are alike in category (or notches within a category), but given there is a prescribed progression of categories (and notches) used in assigning the ratings of a much larger population of entities or obligations, the categories (notches) cannot mirror the precise subtleties of risk that are inherent within similarly rated entities or obligations. While a BCR reflects the opinion of A.M. Best Rating Services, Inc. (AM Best) of relative creditworthiness, it is not an indicator or predictor of defined impairment or default probability with respect to any specific insurer, issuer or financial obligation. A BCR is not investment advice, nor should it be construed as a consulting or advisory service, as such; it is not intended to be utilized as a recommendation to purchase, hold or terminate any insurance policy, contract, security or any other financial obligation, nor does it address the suitability of any particular policy or contract for a specific purpose or purchaser. Users of a BCR should not rely on it in making any investment decision; however, if used, the BCR must be considered as only one factor. Users must make their own evaluation of each investment decision. A BCR opinion is provided on an "as is" basis without any expressed or implied warranty. In addition, a BCR may be changed, suspended or withdrawn at any time for any reason at the sole discretion of AM Best.

Version 041423