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Best's
Methodology and Criteria

Evaluating Reinsurance/Insurance Transformer Vehicles



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Evaluating Reinsurance/Insurance Transformer Vehicles

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 Best's Credit Rating Process for insurance-linked securities and insurance-linked structures.

A. Market Overview

The convergence between the capital markets and the reinsurance/insurance sector has produced various platforms and instruments to transfer risk between insurance entities and capital market participants. The abundance of various insurance structured products has provided an opportunity to transform insurable interest into derivative instruments and vice versa. Such transactions may be accomplished through the use of a transformer vehicle that facilitates a bridge between the capital markets and the reinsurance market. Transformer vehicles may also be used to overcome regulatory hurdles encountered by insurance entities that endeavor to write credit derivative products or access or add additional market capacity.

This criteria procedure highlights rating considerations unique to the evaluation of transformer vehicles and the process by which the transformer vehicle acts as an intermediary to transfer risks to various counterparties (i.e., reinsurance and non-insurance entities). Generally, when rating a transformer vehicle itself, the BILSM outlines the criteria used. The BILSM outlines the methodology used to rate insurance-linked securities and insurance-linked structures. When rating a transformer vehicle acting as a reinsurer which retains underwriting risk, the *Best's Credit Rating Methodology* (BCRM) outlines the criteria used.

An insurance transformer acts as an intermediary between a capital market participant (such as a bank) and an insurance company, allowing the transfer of derivative contracts into insurable interest. A transformer entity generally does not provide reinsurance capacity but rather facilitates transactional business. Transformer vehicles generally are designed to retain minimal net risk by pairing transactions with counterparties through various risk-transfer agreements, including reinsurance and derivative contracts. As such, risk is transformed to ensure that only a minimal amount of underwriting, basis or

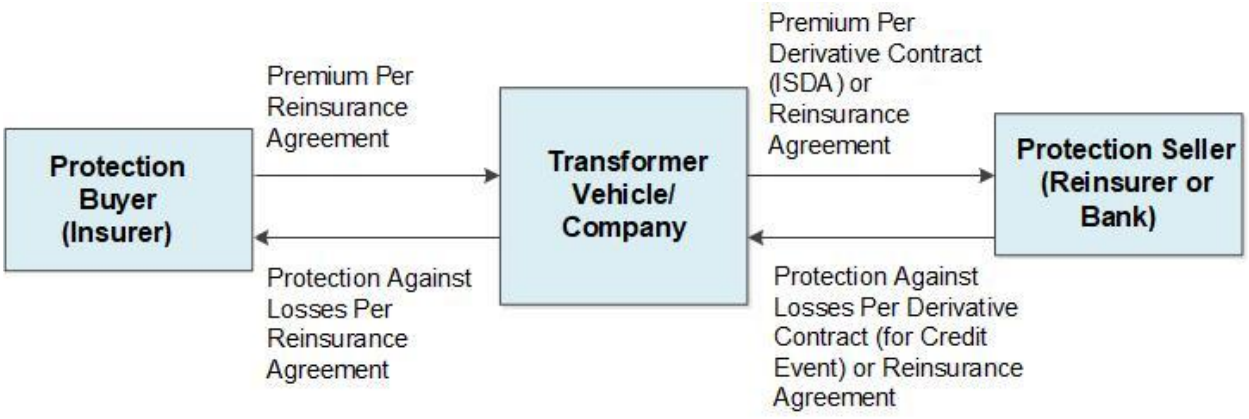
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credit risk remains in the transactional structure. Transformer vehicles are generally set up to create bankruptcy remoteness to the sponsor in the event of the insolvency of the transformer vehicle.

Generally, the risk transformation process can be accomplished through the use of a reinsurer entity, special-purpose vehicle (SPV) or segregated cell in a cell company (CC).

In most cases, the transformer vehicle acts as: 1) an intermediary between a credit derivative counterparty – usually the protection seller or the protection buyer – and an insurance or reinsurance entity; and 2) an insurer or reinsurer with enough capital to meet its reinsurance/ contract obligations. **Exhibit A.1** presents a simplified diagram of the transformation process.

Exhibit A.1: Simplified Transformer Diagram



Transactions Based on a Transformer Vehicle

Transactions that use a transformer vehicle may include the following:

- Special-purpose insurers warehouse insurance risk and have sufficient assets to meet contractual obligations to the limit of exposure through various forms of capital arrangement, including use of collateral, reinsurance programs, debt instruments and other contingent assets.
- Exchange-traded credit derivative contracts covering insurance peak exposures are translated into insurable interest that will provide payment if a qualifying event occurs. The transformer vehicle acts as a conduit between the entity warehousing the credit derivative product – in this case the protection buyer – and the protection seller, a reinsurance company.
- A transformer acting as a reinsurer for investment-linked insurance policies receives premium from the protection buyer for protection against all losses associated with the policy. Simultaneously, the transformer cedes the insurance risk – both mortality and lapse – through a retrocession agreement with a retrocessionaire, and enters a derivative contract with another counterparty to hedge the capital market exposure, i.e., financial risk associated with the policy.

The uniqueness of reinsurance/insurance transformer vehicles requires additional analysis when evaluating a transformer vehicle's capital to fund its exposure. Some of the distinguishing features of reinsurance/insurance transformers compared with traditional reinsurance include: the type of product warehoused in the transformer vehicles; the intended short life span of the transformers; and in addition to reinsurance, the use of other capital-market instruments (i.e., swaps, letters of credit, financial guarantees, contingent arrangements, derivative contracts, etc.) as mechanisms to cede all or a portion of the exposures contained in these vehicles.

B. Rating Considerations

Risk Analysis

A key element of the rating analysis is establishing the level of risk that the special purpose vehicle presents. In conducting its risk assessment, AM Best will review the net capital-at-risk (i.e., capital to fund net exposures) to be retained by the transformer vehicle or reinsurer. The level or amount of net capital-at-risk will vary depending on a variety of factors, including:

- The type of underlying insurance product being underwritten
- The characteristics of the underlying risks (i.e., maximum exposure, policy limits, aggregate losses, probable maximum loss, full limit losses, etc.)
- The loss/claim exposure curve that reflects the potential for incurring losses, claim or payment obligations at specific confidence intervals
- Sensitivities to changes in the various underlying risk parameters that potentially may increase the estimated baseline capital-at-risk at various confidence interval levels
- The level/portion of risks being ceded to counterparties, including the impact of credit mitigators incorporated in the risk transfer process which may reduce the net capital-at-risk

Additionally, AM Best will review a complete risk analysis report associated with the risk in the transformer vehicle as part of its evaluation. The report is expected to include, where applicable, key assumptions used and sensitivity results of modeled losses such as loss exceedance curves, attachment and exhaustion probabilities, projected premiums and loss ratios, and other significant risk contributions. To assist in this evaluation, AM Best may engage third-party actuarial consultants or peril modelers.

AM Best's evaluation of the modeling of the risks in the transformer may consider the following:

- Independent, third-party modeling or assessment of the modeling process by third parties (for example, peril modelers or actuarial firms) with appropriate expertise and track record
- Modeling inputs and parameters, model assumptions, inclusion of secondary uncertainty, loss amplification/demand surge, and inclusion of secondary perils following natural perils event
- Exposure data – how it is captured, quality control, exposure growth, documentation and peer review of information

- Treatment afforded to unusual features, such as annual aggregate deductible, inuring reinsurance, perils or treaties that historically have not been or cannot be modeled

In general, AM Best's risk analysis of a transformer vehicle relies upon data and information provided by the sponsoring entity and other independent third parties. Items reviewed, evaluated or monitored during Best's Credit Rating Process include but are not limited to:

- Documents associated with the formation of the SPV or the CC
- Legal opinions associated with the formation of the SPV or CC (particularly any opinions associated with the protection of the capital of each cell from depletion by other cells)
- Business plan outlining the nature of the risks covered and operating performance
- The regulatory regime and domicile of the transformer vehicle
- Structural regulatory, legal and all third-party-related agreements
- Reinsurance agreements, derivative contracts and collateral agreements
- Capital, operating guidelines and funding structure of the transformer
- Exceedance probability curves, attachment and exhaustion probabilities, conditional tail expected amount, modeling of premiums and loss ratios, and cash-flow models
- The procedures for the establishment and liquidation (run-off) of reserves
- Service providers, i.e., loss-reserve specialist, calculation agent, peril modeler, administrator, auditor and trustee (if applicable)
- Financial reports, i.e., actuarial reports, financial risk position reports (mark-to-market on derivative positions) if applicable, independent auditor's reports and statutory financial statements
- Credit risk management or mitigation, if applicable

Counterparty Assessment

As part of its risk analysis process, AM Best will evaluate both the instrument and the mechanism employed by the transformer to transfer the insurance risk to the various counterparties, including where the exposure of the transformer is not fully funded. The transfer mechanism may involve the use of contingent instruments including, but not limited to, reinsurance arrangements, letters of credit and various swaps agreements. The evaluation of the transfer mechanism will consider the credit quality of the counterparty and/or the financial instrument over the lifetime of the ceded exposures. When the transformer cedes its unfunded exposures to reinsurers not rated by AM Best, third-party ratings assigned to the counterparties and/or financial instruments by other Nationally Recognized Statistical Rating Organizations (NRSRO) may be used by AM Best as a part of its counterparty assessment. Third-party ratings help to gauge the counterparty's creditworthiness and the quality of both the available collateral and other credit enhancements that may serve as mitigation measures. For unrated entities/instruments, AM Best will undertake additional analysis to assess their impact, if any, on the capital-at-risk amounts. AM Best also will assess whether the transformer has enough capital

to guard against additional risks, including but not limited to, liquidity risk, market risk, reinvestment risk, operational risk and legal risk posed by the type of contingent instrument used.

Capital Adequacy

The rating assigned to a transformer vehicle considers and reflects the amount of capital available to cover underwriting risk, basis risk, credit risk or tail risk retained by the transformer.

The assigned rating is largely based upon having enough capital to cover loss obligations at certain confidence levels. For example, barring any other requirements, a transformer vehicle assigned a Best's Issuer Credit Rating (ICR) of "a-" is expected to meet its financial obligations over a one-year risk period at a confidence level equal to one minus the one-year default rate associated with that rating level. The default rates associated with various rating levels can be found in *Best's Idealized Issuer Default Matrix* which can be found in the BILSM.

C. The Assignment of a Rating

Best's Issuer Credit Rating/ Best's Financial Strength Rating

The type of ratings that can be assigned to a transformer are: 1) ICR, which is an independent opinion of an entity's ability to meet its senior financial obligations; and 2) if applicable, Best's Financial Strength Rating (FSR), which is an independent opinion of an insurer's financial strength and ability to meet its ongoing insurance policy and contract obligations.

Best's Issue Credit Rating

If a transformer entity issues debt, AM Best may assign a rating specific to its view of the credit quality of the debt issue. Ratings of debt issued by the transformer will be notched from the ICR of the transformer vehicle. The degree of subordination of the debt issue to the most senior creditors is reflected in the rating.

Surveillance

Surveillance activities conducted by AM Best involve the ongoing, periodic monitoring and review of all requested data and information associated with the transformer. As part of the surveillance process, AM Best will request a quarterly risk analysis report, given the importance that the modeling of the risk plays in Best's Credit Rating Process. In certain instances, AM Best may request more frequent risk analysis reports. In addition to the periodic review, an occurrence or notification of a specific covered event may trigger an acceleration of AM Best's monitoring/assessment process.

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

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

Best's Issue 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 credit-worthiness 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.

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