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Process of Development, Evaluation and Updating Credit Rating Methodologies

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Development and Evaluation

For each of the Credit Rating Methodologies, VIS Rating will assign credit rating analysts to perform the development work, which will include the design of the analytical framework and tools, gathering required data, and assessing the robustness of the methodology. Using the data gathered for selected companies operating in the industry sector covered by the methodology, the credit rating analysts will perform multiple rounds of testing and analysis of the credit rating outcomes produced by the methodology and conduct internal discussions to calibrate and adjust the analytical framework and tools to arrive at the desired credit rating outcomes and rating rationales.

VIS Rating will also form a VIS Rating Methodology Review Committee (“MRC”) to assess the relevance of and recommend the approval of new Methodologies and changes to existing Methodologies to the VIS Rating Approving Body.

A MRC will comprise the Head of Ratings & Research, a Designated Credit Policy Officer, and at least 1 Senior Analyst from the relevant rating groups.

The term ‘Credit Rating Methodology’ as used in this Section, means all components that may constitute the Credit Rating Methodologies, including the related Credit Rating models, Credit Rating scorecards, and key rating assumptions.

VIS Rating Approving Body means:

- a. in relation to any new or revised Credit Rating Methodologies: the Board of Directors of VIS Rating;
- b. in relation to any new or revised model, scorecard, or key rating assumption, in all cases without any impact on the related published Credit Rating Methodologies or related published assessment framework: the Board of Directors of VIS Rating.

Annual Reviews of Credit Rating Methodologies

Credit Rating Methodologies are intended to be applied continuously and need to be monitored on an ongoing basis. In addition, they are subject to validation annually based on historical experience. The means by which this is done is the annual Credit Rating Methodologies review.

1. Ongoing Monitoring

Responsibility for reviewing the relevance and quality of Credit Rating Methodologies rests primarily with the MRC. MRC will monitor the performance of the Credit Rating Methodologies through formal reviews of each Credit Rating Methodology at least every twelve (12) months.

It is neither practicable nor desirable for Credit Rating Methodologies, relevant quantitative tools, or key rating assumptions to undergo frequent changes. The need for change will, in any event, tend to become clear only over a period of time and may lag the changes in VIS Rating’s Credit Rating undertaken to reflect changes in (for example) key rating assumptions. In addition, VIS Rating may

decide to consult market participants, in particular on new Credit Rating Methodologies and material changes to existing Credit Rating Methodologies. Accordingly, and subject to the overriding need to ensure that VIS Rating's Credit Rating is reliable (and to make any changes to Credit Rating Methodologies needed to achieve this in between reviews), it is to be expected that most changes of Credit Rating Methodologies will be initiated by assessments that are made during the annual review process of Credit Rating Methodologies.

Whenever an existing Credit Rating Methodology is applied to rate a type of debt instrument or a type of Rated Entity to which that Credit Rating Methodology has not previously been applied, the applicability of that Credit Rating Methodology to the type of debt instrument or type of Rated Entity in question is reviewed by the Designated Credit Policy Officer. A review of Credit Rating Methodologies – or, as appropriate, the key rating assumptions underlying them – is also required if MRC concludes that there has been a material change in macroeconomic or financial market conditions relevant to the Credit Rating Methodology in question.

2. Annual Reviews of Credit Rating Methodologies

Formal Credit Rating Methodology reviews are the responsibility of MRC. This section provides further details on the conduct of annual reviews. The same procedures apply to reviews of all other Credit Rating Methodologies.

The objective of each Credit Rating Methodology review is to determine whether the Credit Rating Methodology is continuous, systematic, and rigorous, addresses key credit risks as intended, and should be revised or, in extremis, retired.

The principal means by which Credit Rating Methodology reviews achieve this objective is by back-testing the performance of the Credit Rating Methodology. VIS Rating's Credit Rating is intended primarily to rank-order default and loss within sectors and asset classes while achieving consistency across sectors and stability over time. For asset classes that have been outstanding for long periods, for which sufficient quantitative evidence exists and systematic performance analysis is feasible, Credit Rating Methodology reviews will back-test the performance of the Credit Rating Methodologies and any related quantitative tools by assessing the performance of the VIS Rating's Credit Rating determined using those Credit Rating Methodologies over various time horizons.

Where possible, reviews should aim to assess the continued relevance and weighting of the risk factors that comprise the Credit Rating Methodology. That assessment will typically be qualitative. By definition, reviews assess the significance of 'news' – defaults or significant VIS Rating Credit Rating migrations – which has become available over the review period. However, news will be rare, and the events that lead to such events will generally be idiosyncratic and may only be suitable for qualitative analysis. Where the review identifies grounds for concern with the Credit Rating Methodology, the implications, if any, for the relevance or weighting or individual factors will be documented.

3. The Data Package

Reviews are usually informed by a data package, which will typically contain the following data for the sector to which the Credit Rating Methodology applies (but may contain additional data if deemed appropriate by MRC):

- a. default and impairment rates for ratings between AAA to BBB- and for ratings at or below BB+;
- b. average default positions;
- c. downgrade and large downgrade rates (downgrades of 3 or more notches);
- d. fallen angel (downgrade from BBB- or above to BB+ or below) rates; and
- e. average rating 1 year before default or impairment.

The review of the data package will be led by MRC. It is the responsibility of MRC to consult with the relevant rating group staff prior to issuing any final recommendations.

4. The Review Memo

Having reviewed the Credit Rating Methodology against VIS Rating Credit Rating performance and any other relevant factors, MRC will complete a standardized Review Memo, and each Credit Rating Methodology review will be conducted so as to enable completion of all relevant parts of the Review Memo. The Review Memo will summarize the performance of the VIS Rating's Credit Rating driven by the Credit Rating Methodology under review and will contain the data package, along with any other statistics, analyses, and records that MRC deems relevant to the review.

5. Recommendations

Any recommendations for changes to the Credit Rating Methodology or to key rating assumptions or for further analysis will be set out in the Review Memo. All recommendations and deadlines will be set out in the Review Memo, and the Credit Rating Personnel will be responsible for each action point identified in the Review Memo.

Approval of New Credit Rating Methodologies and Updates of Existing Credit Rating Methodologies

MRC is responsible for assessing the appropriateness of proposed new or revised Credit Rating Methodologies and recommending the use by VIS Rating of such Credit Rating Methodologies to the VIS Rating Approving Body. Proposed revisions are considered material if their adoption has the potential to change or cause the withdrawal of any outstanding VIS Rating's Credit Rating.

For all new Credit Rating Methodologies and material changes to existing Credit Rating Methodologies, the process is as follows:

The Designated Credit Policy Officer will submit the proposed Credit Rating Methodology to MRC, along with supporting documentation. MRC's recommendation to approve Credit Rating Methodologies rests on its assessment of the development work presented by the Designated Credit Policy Officer. As appropriate, MRC's assessment will focus on the robustness of the proposed Credit Rating Methodology.

For a new Credit Rating Methodology being applied to existing Credit Rating, this primarily involves a comparison of Credit Rating predicted by the proposed Credit Rating Methodology with current Credit Rating (comparing both ranking and levels). Where a new Credit Rating Methodology is highly similar to an existing Credit Rating Methodology, it may be assessed by evaluating the performance of the existing Credit Rating Methodology. In some instances where the Credit Rating Methodology cannot be assessed by quantitative models, MRC will review the proposed Credit Rating Methodology within a qualitative framework of principled and conceptual arguments and compare the proposed Credit Rating Methodology to existing methodological frameworks, as applicable.

For new Credit Rating Methodologies or changes to existing Credit Rating Methodologies, the process will entail consideration of an accompanying data package with necessary information as relevant as per section "3. The data package" above. The data package will be generated within three (03) months from the submission of the proposal to MRC. For new Credit Rating Methodologies, a data package will not be required.

For a non-material change to an existing Credit Rating Methodology, the Designated Credit Policy Officer submits to MRC the revised Credit Rating Methodology with a description of the changes to the Credit Rating Methodology and an explanation as to why these changes are not deemed to be material. For non-material changes, MRC will first confirm that the changes are not material and then issue a recommendation to the VIS Rating Approving Body to approve the publication of the revised Credit Rating Methodology and/or the use of the updated Credit Rating models or Credit Rating scorecards, as applicable.

Once MRC has recommended approving a new Credit Rating Methodology or a materially revised existing Credit Rating Methodology, this Credit Rating Methodology is subject to approval by the VIS Rating Approving Body.

Retirement of Credit Rating Methodologies

Credit Rating Methodologies may need to be retired either (i) where VIS Rating no longer rates the relevant asset class; or (ii) where the Credit Rating Methodology has been replaced. The Designated Credit Policy Officer can recommend to MRC that a Credit Rating Methodology be considered for retirement. In addition, the Review Memo can include a recommendation that a Credit Rating Methodology be considered for retirement.

Credit Rating Methodologies are designed to provide the appropriate rank ordering of the various credits assessed by the Credit Rating Methodology. They set out the broad analytical frameworks that guide Credit Rating Committees in determining Credit Rating within specific industries or asset classes.

Glossary of Defined Terms

Analyst

An Analyst is any VIS Rating Employee assigned to a rating team with the title of Associate Analyst or higher satisfying the regulatory requirements and other relevant VIS Rating Internal Policies and Procedures whose function is to (a) assign or monitor Credit Ratings and, if applicable, the related Outlook or Review, (b) assist in drafting materials or developing deal specific models being considered for Credit Rating Committees, or (c) supervise VIS Rating Employees included in (a) or (b) of this definition. The definition of Analyst excludes any VIS Rating Employee assigned to a rating team who: (1) is not involved in the Credit Rating process or (2) supports the Credit Rating process solely through administrative tasks, such as entering information into internal systems.

Model

Quantitative tool which produces as output a debt-level or issuer-level indicator which is, or can be translated into, the presumptive rating of that debt instrument or issuer. The indicator, which is one of the main drivers of the final rating, could be a rating itself, or any other relevant value, such as an expected loss or an Internal Rate of Return (IRR) reduction, which is directly mapped to a rating.

Scorecard

Quantitative tool that uses scores assigned to various factors, the weighted average of which translates into some performance metric, such as a rating or a rating range. Only basic mathematical operations and look-ups can be used. Simulation engines cannot be classified as Scorecards.

Other capitalized terms used herein that are not listed under this Glossary shall be referred to the Glossary part of the Credit Rating Process.

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