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METHODOLOGY FOR STRUCTURED FINANCE PRODUCTS

The following rating methodology is the generalized version of the methodology that CariCRIS would use to analyse issues of structured finance products. The analysis of various products will be based on slightly customized versions of this general methodology. The analysis of market risks and cash flows will be based on a model designed for each type of product.

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The CariCRIS framework for analysing structured finance products or structured obligations (SO) includes four (4) key components

- 1. Credit Risk
- 2. Legal and Regulatory Risk
- 3. Market Risk
- 4. Counterparty Risk

An outline of the CariCRIS framework and the underlying factors forming key areas of the analysis of SOs is represented below. It may be noted that the framework is designed to focus on the impact of each parameter on the assessed SO's ability to repay its debt obligations, that is, its creditworthiness.

A description of each assessment parameter follows:

Credit Risk

This involves an analysis of the nature of the underlying financial assets, the robustness of the origination processes, past performance of the originator's overall portfolio and pool characteristics which provide pertinent insights into the credit risks associated with the underlying borrowers/ issuers.

In our analysis of Structured Obligations, we consider the following four (4) sub-components:

Asset Risks

The analysis of asset risks takes a view on the underlying assets contained in the pool. CariCRIS' analysis looks at the relative risk levels of the various underlying securities. The assessment also considers credit enhancements (over collateralisation, guarantees, etc.) associated with the assets within the pool, which may serve as credit positives. CariCRIS' analysis of SOs also considers the creditworthiness of the underlying borrowers/ issuers.

Originator Risks

CariCRIS also assesses the risks associated with the originators of the assets and their participation in the primary lending markets. This takes a view of the originator's risk appetite and the strategies implemented for achieving asset portfolio growth. CariCRIS therefore assesses the quality of the risk assessment/ underwriting practices and tools utilised by the originator in



its daily operations. Additionally, an assessment is made of the adequacy of risk management, control, and information systems where applicable.

Portfolio Risks

The pool of assets being securitised is derived from a portfolio of financial assets held by an originator, participating in financial markets, including institutions participating in the secondary mortgage market. We assess the participating institution's track record of holding good quality assets in its portfolio and assesses inter alia, past, and current performance metrics of portfolios, which provides a proxy for expectations of possible performance of the securitised pool. Where the information is available, CariCRIS compares the portfolios of other originators with similar assets to ascertain variations in credit quality.

Pool- Specific Risks

The quality of the assets contained in the pool is one of the most important aspects in assessing the underlying risks of SOs. Various factors which are perceived to provide good indicators of performance are considered. In our assessment, we take into consideration pool characteristics such as seasoning (average age of the pool; the higher the seasoning, the better the perceived quality) in the case of mortgages, credit ratings in the case of fixed income securities, past due payments at the time of entry into the pool and the pools average loan to value (LTV) ratio. Based on the overall quality of the pool, CariCRIS determines the level of stress to apply to cash flows.

Legal and Regulatory Risk

This takes into consideration a review of the legal structure of the SO and assesses whether the securitised assets are appropriately isolated and protected from bankruptcy or insolvency risk. It also considers adherence of the transaction's structure to the relevant domestic legislation and regulatory guidelines.

In our legal and regulatory risk assessment of SOs, we consider the following three (3) sub-components:

True sale

A true sale represents whether the assets being securitised are bankruptcy-remote from the originators. Part of CariCRIS's assessment includes an examination of the transaction documents to determine whether the true sale requirement is being fulfilled.



The originator should have minimal control over the assets being transferred into the securitised pool. The true sale is effective when all the risks and rewards connected to the asset are transferred to the asset pool. The transfer of the assets results in the buyer having no recourse to the seller except in circumstances where the seller provides certain guarantees or credit enhancements. In the case where the originator retains some risks in the portfolio of assets, CariCRIS will determine the extent to which the investor will have recourse to the originator. If the originators or investors are regulated by any regional Central Bank, Financial Services Commission or Securities Exchange Commission, the transaction bringing into effect the SO should be compliant with any Minimum Retention Requirement (MRR) regulations in place.

Independent Legal Opinion

It is important that the legal risks of SOs be carefully assessed and measured for sufficient and appropriate evaluation. Based on the structure and complexity of the transaction, CariCRIS may require the originator to obtain a legal opinion on the transaction confirming (i) that the transfer of the assets to be securitised does not breach existing agreements, (ii) the transfer of the assets represent a true sale, (iii) and credit enhancements are irrevocable, unconditional and enforceable.

Market Risk

This involves an analysis of those factors that while exogenous to the transaction may still affect its performance. Assessing the market risk of the transaction provides a basis for incorporating market related stresses within the model. In CariCRIS' analysis of Structured Obligations, we consider the following three (3) sub-components:

Macro-economic risks

The performance of the securitised financial assets depends largely on macro-economic factors such as industry dynamics or adverse price movements of the underlying assets. CariCRIS' market risk analysis also considers events or factors that may lead to protracted declines across sectors and industries and the impact these events may have on the assets exposed to that industry/ sector. Additionally, factors that may lead to a deterioration in the prices of assets and the impact on collateral coverage is also assessed.



Prepayment risks

Changes in certain market-related variables may result in prepayments towards securitized assets such as mortgages or in the case of fixed income instruments with option features, they may result in the option on these instruments being exercised prior to maturity. Consequently, investors may receive invested funds ahead of schedule and may not be able to reinvest these amounts at a similar yield. Some transactions feature prepayment tranches that insulates other tranches from being impacted by the volatility of cash flows experienced with prepayments. CariCRIS incorporates relevant prepayment assumptions in its analysis of SOs.

Interest-rate risks

For transactions where the assets in the pool (mortgages, fixed income securities) carry a variable rate, while payments to the investors are done on a fixed rate basis and vice versa, there is an element of 'basis risk' to the transaction. This results in an interest rate mismatch where the cash inflows for the pool may not be sufficient to fully cover the payments to investors.

Cash Flow Analysis and Credit Enhancements

Cash Flow Analysis

CariCRIS creates a cash flow model for the transaction taking into account the various structural features, which considers both inflows and outflows. Based on the scheduled sequential cash flows from the asset pool, a default rate is imposed in addition to a prepayment rate in the case of mortgages and fixed income instruments with option features, based on prior performance of the pool (subject to the availability of information). The cash flow analysis also includes repayment mechanism to investors based on the payment priority for each tranche of the obligation. Where applicable, cash flows to additional tranches serving as enhancement mechanisms are incorporated. The monthly cash inflows and outflows are compared to derive any surpluses or shortfalls.

Credit Enhancements

Credit enhancements to transactions are provided through 2 mechanisms: internal enhancements and external enhancements.

Internal enhancements to the SO are those provided to the transaction through structural features such as excess interest spreads (EIS), over-collateralization, and subordination of tranches. The EIS represents the excess of interest received from the underlying assets in the pool relative to the



interest payable to investors. In the case of shortfalls in the cash flows, the EIS can be utilized to meet these shortfalls. There may be various market factors that may result in the EIS projections deviating from the projected path. For structures with several tranches, some tranches may be senior or subordinated to others, which dictates the rights to cash flows. The most senior tranches are first in line for the receipt of cash flows, with subordinate tranches last in line. Over-collateralisation provides an extra layer of protection to subordinate tranches as well as to senior tranches in stressed scenarios.

For external enhancements, if the collateral is held in the form of investments or any form other than cash, CariCRIS will further assess the quality of the investments held. In the case of guarantees, CariCRIS will assess the credit rating of the guarantor in addition to assessing any counterparty involved in the provision of the guarantee to determine the associated risks.

Counterparty Risk

This takes into consideration the ability of a key counterparty to perform their respective role in a competent manner. This risk is assessed using a combination of qualitative and quantitative factors, which include the quality of processes and systems of counterparties. The assessment may also reference the entities' credit ratings (if available) as a proxy for the counterparty's ability to continue to perform satisfactorily over the tenure of the transaction. Consideration is also given to past experience in handling similar securitisation transactions.