

Contacts:

Suchada Pantu, Ph.D.
Deputy Vice President,
Credit Rating Department
(662) 231-3011 EXT. 217
suchada@tris.co.th

Yingyong Chiaravutthi, CFA
Manager,
Credit Rating Department
(662) 231-3011 EXT. 223
yingyong@tris.co.th

Watana Tiranuchit, CFA
Senior Executive Vice President
(662) 231-3011 EXT. 200
watana@tris.co.th

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Guidelines on Securitization Rating Methodology

Credit rating of securitized debt instruments reflects the probability that the bondholders will receive full payments from the debt issuer within a specified time period. The rating represents credit risk in terms of probability of default and loss severity given such default, but does not take into account the risk from falling instrument prices due to changes in interest rates in the prevailing market and the prepayment of obligations.

Guidelines on securitization rating presented herein are similar to corporate debt rating in terms of the credit rating process; however, securitization rating criteria will vary based on the types of assets to be securitized that will be used to generate future cash flow backing the transactions.

Assets that are widely used as collateral for securitization are:

- Mortgage, such as residential-mortgage loans and commercial-mortgage loans
- Consumer loans, such as personnel loans, auto hire purchase receivables, and credit cards loans
- Trade receivables and lease
- Long-term purchase agreements, e.g. power purchase agreements

Securitization Rating Criteria

Securitization rating criteria comprises three major areas.

1. Asset Analysis

The asset quality analysis may have various details based on the types of assets to be securitized.

1.1. Qualitative Analysis – The analysis is based on information provided by the originator and from interviewing management of the company that plans to sell the assets (Seller/Originator). This information will be compared with information for the overall industry to assess the quality of the assets used as collateral for the bond issuance. In the case of mortgage-backed securities, such as commercial

mortgage-backed securities (CMBS), the analysis will focus on the properties being collateralized to determine their ability to generate income and the ability of the project manager to manage the properties. For revolving assets, such as trade receivables and credit card receivables, the analysis further considers the ability of the originator to continuously generate new loans in the future and the ability of the servicer with respect to its debt collections. Generally, seller/originator is acted as servicer of the transaction.

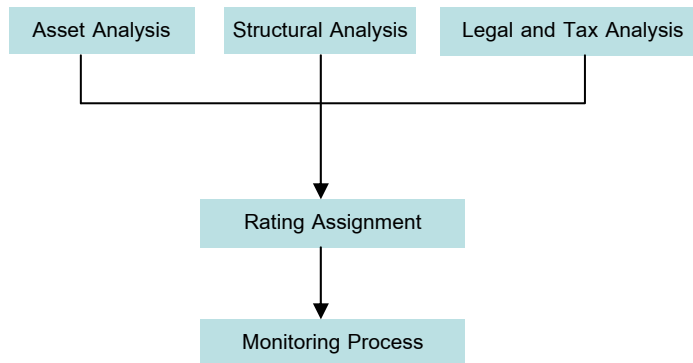
1.2 Quantitative Analysis – the analysis takes into account past performance relating to revenues and expenses to determine the likelihood of default and the severity of loss due to default. The issuers' expected net cash flows at any given time is also important for evaluating the liquidity of the transactions.

2. Structural Analysis - the analysis examines various factors such as cash flow structure, priority of payments for each class of rated debentures, cash reserve accounts, and credit enhancement level to determine if they are compatible with the assigned credit rating.

3. Legal and Tax Analysis

The Rating Process of Securitization Products

Figure 1 Rating Methodology – Securitization Products



This part will focus on the details of three major areas that TRIS Rating used to analyze and assign credit ratings for securitization products:

1. Asset Analysis

Asset quality is the key factor used in rating securitization instruments. The analysis focuses on both quantitative and qualitative aspects to project the expected loss that might be incurred from investing

in the underlying assets. Expected loss is derived by multiplying the default probability by the loss severity for a given default. The expected loss is used as a reference for levels at which credit enhancement is required for the securities to achieve the target credit rating desired by the issuer.

1.1. Qualitative Analysis

The analysis takes into consideration management's experiences and the originator's objectives, business strategies, and financial performance. In particular, the originator's past operating performance is compared with its peers. A corporate analyst who has expertise in the underlying industry will be part of the securitization team and will participate in the analysis process.

Major factors that the analyst takes into consideration include:

1.1.1. Industry Analysis

Industry analysis looks at market size, number of players, product characteristics, degree of competition, and industry prospects. The analysis is based on information furnished by the corporate analyst to provide a good understanding of market situation.

1.1.2 Corporate Assessment

An in-depth analysis of the seller/originator will include the following factors.

- **Company Profile**

Even though rating of securitization instruments puts more weight on the quality of securitized assets, a fundamental analysis of the seller's profile helps provide insights into the underlying asset quality. The analyst team must examine the company's operations since its inception, including its record of dealing with crises, and evaluation of its policies and strategies whether they are suitable with the company or not. The company's growth rate is compared against the industry. The company should have a minimum of 3-5 years historical record. The longer the period of historical data is provided by the company, the more accurate the analysis. In the event that the company has only been in business for a short time or has posted poor operating results, bond insurance and some form(s) of guarantee may be needed to enhance the creditworthiness of the securities.

- **Management Experience**

Management should have experiences in their businesses. Greater confidence is accorded companies whose management has been with the company for long time and has successfully dealt with past crises. Management capability is particularly important in future flow or corporate securitizations that are primarily dependent on the likelihood of the future generation of the product or service that generate the cash flow stream being securitized. In addition, management's credibility is a crucial factor in the analysis.

■ Strategies, Objectives, and Operating Policies

Since each company has different target customers, its business strategies can vary by types of customers. Most of the underlying assets for securitization are financial assets, such as auto hire purchase receivables, residential mortgage loans, or consumer loans. The quality of such financial assets at each point in time reflects the originator's underwriting policies, write off policies, and debt collection procedures.

1) Underwriting Policy

The analyst takes into account the risks associated with the originator's lending policies and their impacts on the quality of the underlying assets. An originator who lends primarily to low credit profile individuals or whose loan-to-value ratio is greater than that of industry peers, is considered risky, as its assets are of low quality. A prudent underwriting policy helps mitigate future losses, as borrowers with a high potential of default are not included in the originator's portfolio.

The analysis of the underwriting policy looks into the following details.

- Income of the borrowers
- Historical payment records of the borrowers (normally, the lender will check the credit profile of the potential borrower with the Credit Bureau)
- Employment status, e.g. job stability, job description, employment term, promotions
- Housing status, e.g. owned or rented
- Debt to income ratio
- Credit score (in case the lender has an internal credit scoring)
- etc.

When there are a large number of borrowers, the analysis looks at the characteristics of the portfolio as a whole, both in terms of averages and distributions of the factors mentioned above, to determine the overall quality of the borrowers in the portfolio. Though some portfolios have similar lending policies and mean values for each parameter, the gaps between the maximum and the minimum values might be different; thus, an in-depth analysis is required. A wider range implies a higher standard deviation and make it less likely that using historical performance will accurately predict future performance.

If lenders utilize an effective internal credit scoring system, either a simple model or a very complex one, as a lending tool, it will reduce the time spent evaluating the credibility of

borrowers and will help apply the standard between headquarters and its branches. Such practice helps reduce credit risk, to a certain extent, due to the underwriting process.

When collateral, such as residential property and commercial real estate, is used to secure the debt, thorough analysis is required to determine the expected recovery rate in case of foreclosure, which will be used to calculate the necessary level of credit enhancement. For loans that have no collateral, such as credit cards loans, a recovery rate will be 0%.

2) Collection and Servicing Policy

A good collection and servicing policy is a crucial factor for all types of lending businesses, particularly when delinquencies are rising. If a lender's debt collection process is not rigorous, loans that demonstrate bad signs can easily become bad debts, resulting in losses that are higher than projected, especially in the case of subprime loans. Under such circumstances, overdue loans will start accumulating and will rarely move back to normal status. Thus, subprime borrowers need to be reminded of their obligations well before the due date. Subprime borrowers who have made more than one late payment are rarely able to generate enough income in the future to move their overdue positions back to normal. On the contrary, a prime borrower who misses a payment is much more likely to return to normal.

Typically, the originator will become a servicer of the transactions. This will help smoothen on the ongoing collection process. As long as the originator still performs the servicing, the originator does not have to inform the borrowers that their accounts have been transferred to the special purpose vehicle – SPV. For a servicer with a “A” rating or higher, a back-up servicer may not be required; otherwise, a back-up servicer is necessary to smooth out the debt collection and ensure that cash flow streams required to make the principal and interest payments to the bondholders are not interrupted. In some cases, the trustee will take the place of the servicer or will be responsible for finding a suitable servicer. The back-up servicer should possess extensive experience in collecting similar type of debts, a sufficient number of staff, an appropriate IT system, and the ability to replace the original servicer within a short time period. A reserve account, with cash sufficient to meet the payments incurred during the period of transferring servicing role to back-up servicer, is beneficial to protect against any cash shortfalls.

3) Loan Classification and Write-off Policies

In general, delinquencies are classified into several categories based on the number of days past due, e.g. 30, 60, and 90 days. The delinquency rate is calculated using the

remaining outstanding principal, not the unpaid principal during any specific periods. Delinquent accounts include all overdue accounts that are not yet charged off.

Since the loan classification and write-off policies differ between companies, the analyst needs to understand details of each originator's policy in order to justify the comparable expected loss of each company. An insightful look at the criteria for reclassifying a borrower under debt restructuring program back to normal status is particularly important. Generally, restructuring loans are classified as defaulted loans that must be included in the default rate calculation.

A company's write-off policy has a significant impact on the loss severity since any delays in writing off bad loans could prolong the liquidation process of assets or collateral, leading to deterioration in asset value. To achieve standardization, the company should have a policy of writing off a debt once it is more than a certain number of days past due.

- **Competitive Position**

The analyst must examine the company's competitive position compared with its peers in terms of revenues, profits, strengths, and weaknesses. In case of short-term loans, such as credit cards receivables or trade receivables, the analyst needs to pay attention to the company's ability to constantly generate new receivables to replace the expiring ones since the SPV must use the payments from cardholders to reinvest in new receivables during the revolving period. Aggressive marketing strategies in highly competitive industry can negatively impact overall asset quality. To attract customers, lenders in highly competitive markets, such as auto hire purchase receivables or residential mortgages, will sometimes relax their lending policies either by reducing the minimum salary of borrowers or increasing lending limits. Such practices raise the number of subprime borrowers and might potentially push up the default rate of the portfolio.

1.2 Quantitative Analysis

The analysis weighs the default probability, loss severity, and expected time-to-default to determine an appropriate credit enhancement level and a sufficient cash reserve during periods in which defaults are expected to peak.

Expected Loss can be calculated based on:

1.2.1 Historical performance of the underlying receivables

This method is suitable for assets that are diversified and have historical performance records that are long enough to be statistically meaningful. In addition, business policies of

each originator should not have changed dramatically over the analytical period and the securitized pool should have similar characteristics as the historical pool data.

1.2.2 Credit strength of obligors on the underlying receivables

This method is suitable for pools in which the underlying assets are corporate debts or bonds that carry credit ratings assigned by TRIS Rating or other rating agencies accepted by TRIS. The credit ratings of each obligor will be used to assess default probability and loss severity, which in turn will reveal expected loss and level of credit enhancement required.

■ *Expected loss calculation*

The following explains how the expected loss is calculated when using the historical data of the underlying receivables method (1.2.1). For short-term loans, e.g. auto hire purchase receivables or consumer loans, at least 3-5 years of historical performance is required to calculate the expected loss of the securitized pool. For long-term loans, such as residential mortgage loans, a longer period of historical data is required. In addition, the historical pools data used should have similar characteristics as the securitized pool. Data from the 1997 crisis is particularly useful as it demonstrates the worst case scenario. However, most companies do not keep the historical data from that far back. Historical loss data used to determine base-case loss may be adjusted in terms of mean or standard deviation in order to estimate the suitable level of credit enhancement required for each rating grade. In some cases, if the mean loss has an upward or downward trend, this trend must be included in the expected loss calculation. In general, the analyst will review the historical performance of both the portfolio data and the static pool data.

Portfolio Data Portfolio data evaluates the performance of the portfolio at a specific time without considering its movement over time. In general, a rating agency requires originators to have approximately 3-5 years of historical data, including a number of overdue loans (classified by period, e.g. 30 days, 60 days, 90 days), cumulative loss, and recovery. Portfolio data is usually not constant as its composition is changing over time. However, the expected loss can be estimated accurately if the composition of the originator's loan portfolio is rather stable over time. Fast-growing portfolios will result in loss and recovery rates that are lower than they should be, due to the larger denominator base. Adjustments can be made by comparing loss at time "t" to the portfolio size at time "t-1" to reduce bias from a growing portfolio size.

The total expected loss is obtained by multiplying the annualized net loss estimated from the portfolio data by the weighted average life of the portfolio. The weighted average life of

the portfolio is counted from the debt issuance date to the expected maturity date, which is the date on which debentureholders should receive full payment.

Portfolio data is usually less accurate in determining the expected loss than static pool data. Static pool data is, thus, a more preferred measurement of the pool performance of the securitization.

Static Pool Data A static pool collects borrower data as a group. Each group represents loans originated during the same period and the performance of each group is continuously monitored over time. For short-term loans, the analyst will normally ask the originator to provide complete pool performance, with the data from the origination date until the last loans' repayment date. Static pool data gives the analyst a more accurate measurement to calculate the future expected loss than portfolio data, since static pool data follows the performance of the same loan pool over a period of time, or until maturity. A static pool is also useful for evaluating loss performance among groups with different characteristics, given that static pool data can be classified by loan characteristics. For example, data collection for auto hire purchase receivables can be classified into new/used cars, Bangkok/upcountry, or passenger/commercial car.

Besides being used to determine total expected Loss over loan life, static pool data helps estimate expected bad loans at any given period over the life of the loan (Loss Curve). Since static pool data follows the loan performance from origination to a certain point or maturity, the default pattern for each particular type of asset will demonstrate the loss curve, which can be used as benchmark in the future. The analyst relies on such data to predict the percentage of defaults in each period over the life of the loan and to determine the time to reach the peak default and the required level of credit enhancement. Default patterns differ among asset types. For example, default rates for auto hire purchase receivables are usually high in the period of 18-24 months after origination, while the rates tend to be low in the first year and the later years of loan life as borrowers are generally well-funded at the beginning and will try to own the assets after already having paid a large amount.

Figure 2 Cumulative Default Curves (Auto Hire Purchase Receivables)

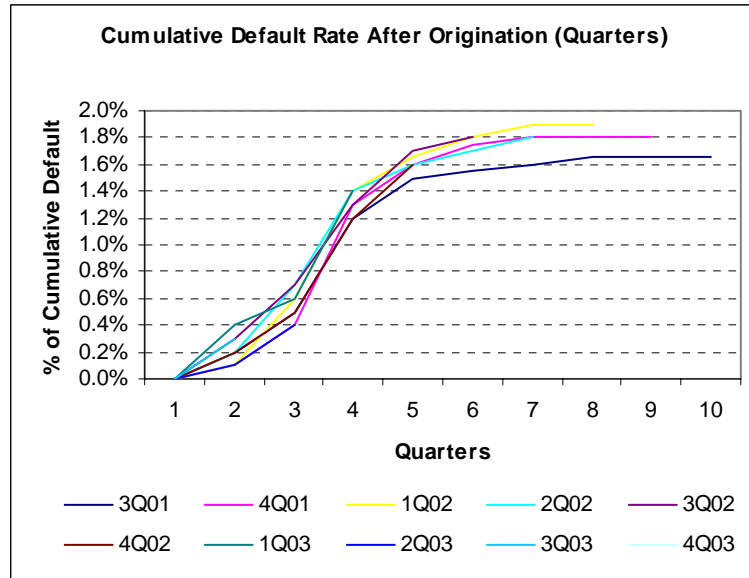
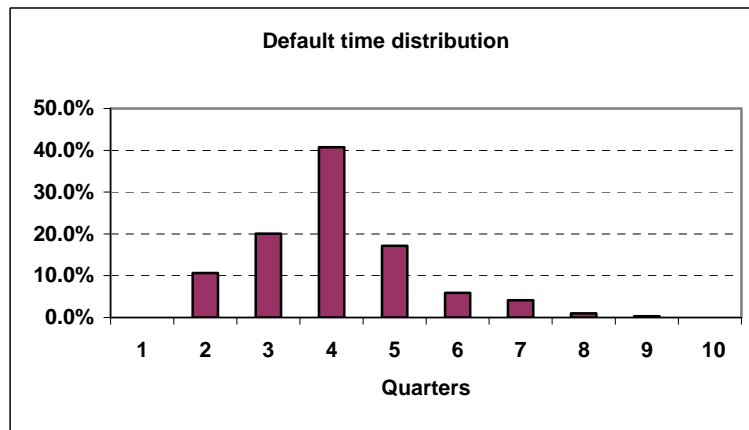


Figure 3 Default Time Distribution



Static pool data also has certain limitations as a predictive tool, especially in cases where the originator changes its underwriting policy or the term of loans, causing the future loss curve to deviate from the past. In addition, if the borrower characteristics of the securitized pool differ from the historical static pool data, the estimation of total expected loss for the securitized pool will be less accurate.

2. Structural Analysis

How the securitization deal is structured can significantly impact risks of the instruments. The structural analysis focuses on the cash flow allocation, priority of payments, and types of credit enhancement. In the new securitization market, a guarantee provided by a third party or liquidity

facility provider is widely used to support transactions. The guarantor should have an investment grade credit rating, and the rating must be equal to or higher than the target issue rating.

However, credit enhancement through a third party, such as letter of guarantee or bond insurance, results in higher total funding costs. An originator that has sufficient historical data to enable the analyst to determine the expected loss, normally prefers internal credit enhancement, such as over-collateralization, subordination, excess spread, and reserve fund.

2.1. Priority of Payment

Securitization transactions must specify the priority of payments to all involved parties. The priority of payments is related to the potential loss of each rated tranche. A high-rated tranche will receive repayment before lower-rated tranches. Thus, if cash flows from the underlying assets are insufficient to repay all debentureholders, the holders of the lowest-rated or un-rated debentures (subordinated class) will suffer the loss first. The subordinated debentures are usually held by the originator. When payments are allocated on a pro rata basis, all rated debentures will get the same credit ratings. Beside the payment priority, principal payment can be either bullet or amortization. An amortized bond is less risky, as principal is periodically paid out to reduce the amount of loss in the event of default, whereas a bullet bond contains refinancing risk.

2.2. Lockbox Account Structure

In general, collections from borrowers are strictly collected and directly transferred to an SPV account or trustee account called a “lockbox”. In some cases, the payments are collected by the servicer, who is also the seller/originator. The structure should allow cash to be in the servicer’s accounts for as short a time as possible to avoid the commingling risk, especially in the case that the servicer declares bankruptcy. Commingling risk is the risk that the collected money is mixed with the servicer’s own assets. In such a case, the servicer’s creditors might claim the right over the money and refuse to transfer it to the debentureholders. Credit enhancement is usually set up to cover losses under such circumstances.

2.3. Credit Enhancement

The credit rating agency must determine the suitable credit enhancement level required to achieve a target credit rating. A high credit rating requires a higher credit enhancement level than lower credit ratings. There are two types of credit enhancement: hard support and soft support. Hard support exists at closing date. Examples of hard support are fixed deposits that are held in the reserve account, specific level of over-collateralization, and subordination. Soft support consists of excess spread that varies during each period. Excess spread is calculated by deducting the returns on the underlying assets by the interest payments to investors and default losses during

the period, and adding back loss recovery from prior periods. Excess spread varies from period to period depending on the different of interest received and interest paid, number of defaults and number of delinquencies.

2.3.1. Credit Enhancement Level

Setting up an appropriate credit enhancement level depends on several factors.

- Reliability of the historical performance data of the underlying assets. A longer period of historical data that is sufficient to build a reliable statistical outcome will result in a more reliable expected loss.
- Assumptions used to determine the base-case loss.
- Volatility of loss and delinquency performance. High volatility requires higher credit enhancement level.

2.3.2. Fixed or Amortized Credit Enhancement

Asset-backed securities, such as auto hire purchase receivables-backed issues, usually are allowed to reduce the credit enhancement level proportionately to the declining outstanding receivables in the pool, as the credit risk decreases when the pool approaches maturity. The default rate in each period must be considered before reducing the level of credit support. A reduction in subordinated class in light of higher loss occurring in later periods may result in insufficient cash flow to meet the payment schedule. Thus, to allow the credit support level to decline over time, the analyst needs to fully assess the default probability during each period to ensure that the default rate will not rise in later periods and that portfolio quality should improve over the life of the debentures.

In some instances, when the pool size is reduced due to debt repayment over time, the originator, who is also a servicer, tends to be less active in debt collection as the fee to perform collecting activity is small. The originator is usually allowed to repurchase all receivables when the pool size proves uneconomical for the originator to have a separated collection account. In general, the rule allows an originator to repurchase all receivables when the pool size is reduced to less than 10% of the original pool size.

2.3.3. Cash Flow Model

A cash flow model is used to quantify the size of credit enhancement (such as over-collateralization, subordination, or excess spread) required for the target rating of the debentures. The cash flow model will be based on actual bond payment characteristics and underlying asset characteristics. The analyst needs to set appropriate base-case assumptions, e.g. yield, default rate, recovery rate, and/or prepayment rate for the portfolio,

using the historical performance of the originator or comparable issuers. Net cash flow for each period is a good liquidity indicator for the transaction.

For several securitization transactions, e.g. auto hire purchase receivables-backed securitization or residential mortgage-backed securitization (RMBS), the originator needs to provide historical static pool performance relating to expected cumulative losses and timing of defaults, repossessions, and recoveries. Foreclosure expenses and liquidation costs must be included in the calculation. The analyst should set the liquidating time long enough to ensure that debentureholders will receive their payments within the legal final maturity date, particularly in the case of RMBS, where the legal and liquidating process takes quite a long time. Therefore, the legal final maturity date is usually set later than the maturity date of the payment to the debentureholders.

2.4. Other Consideration Factors

2.4.1. Pool Selection Criteria

Pool selection criteria is one of the most important steps in the transaction, since several characteristics of assets to be included in the pool might be different from the assets in the static pool data. Thus, the characteristics of the securitization pool must be thoroughly scrutinized, noting the similarities and differences with the seller's historical data. Factors that may impact the expected loss rate of the pool, e.g. underwriting policy, servicing policy and write-off policy, must be taken into consideration when calculating the credit enhancement level of the securitization pool.

For short-term loans such as credit cards receivables, the transaction usually has a revolving period during which monthly principal collections are used to purchase new receivables to replace expiring ones. The transaction is required to have clear criteria for the characteristics of the new receivables to be transferred to the SPV in order to ensure that the new receivables will not have different characteristics from original pool. Generally, a securitization pool that requires a high rating grade is not allowed to include overdue receivables. In some cases, to ensure that pool characteristics are consistent with the assigned rating, credit rating affirmation may be necessary before the issuer may add a new group of receivables into the pool,

In practice, the originator needs to provide detailed characteristics of the underlying assets used for securitization and the selection criteria for loans included in the pool. For the auto hire purchase receivables-backed securitization, the detailed characteristics would be seasoning of the loans at the beginning, weighted average of the remaining terms of the loans, average return, highest/lowest returns, concentration of borrowers, and average

credit score of borrowers. Criteria used to select assets for residential mortgage-backed securitization comprise characteristics of the underlying obligor, type of properties, and loan characteristics. Averages and ranges are normally indicated to ensure that the characteristics of the underlying obligor, type of properties, and loans are in line with the estimated loss calculated from the historical data.

2.4.2. Trigger Level

Securitization structures usually contain triggers to help protect debentureholders, particularly senior class debentureholders, against loss due to the deterioration in the quality of assets in the pool. Once the trigger event occurring, principal and/or interest repayment on the debentures will be accelerated. General types of triggers are the debt service coverage ratio (DSCR), three-month moving average of delinquency, three-month moving average of net loss, as well as cumulative net loss rates. An effective trigger must not be too rigid nor too loose. Setting a rigid trigger will result in early amortization while the asset quality in the pool is still acceptable. However, if the trigger is set too loose, the pool quality might deteriorate to the level where cash flow is insufficient to repay debt.

2.4.3. Aging of loans (Seasoning)

For some types of securitization, e.g. auto hire purchase receivables-backed transaction and residential mortgage-backed securitization, historical data demonstrates a correlation between default frequency and aging of loans. Generally, default probability is usually low at the beginning stage as most borrowers have passed the screening test and possess sound financial profiles. At a certain point, some borrowers might face some financial difficulties and may be unable to repay debts. Given that the amounts paid so far are not substantial, borrowers are more likely to default in this stage. In later stages, since borrowers have paid most of the outstanding balance and are unwilling to give up their assets, the default probability will decline. In addition, as the loans approach the maturity date, the loss to the debentureholders will be minimized in the event of default.

Therefore, seasoning of the pool must be taken into consideration. If the pool contains all new borrowers, it is likely that the peak loss period has not yet passed; therefore, credit enhancement level and reserves must cover the loss expected to occur during the peak period. On the other hand, a seasoned pool that has already passed the peak loss period can have a lower credit enhancement level than the previous group.

2.4.4. Returns from Reinvestment

In the bullet structure, the SPV will have a cash reserve account that will be used to repay principal on the maturity date. The cash in this reserve account can be used to invest. To

preserve the principal amount, which is particularly important in “AAA” rated securities, the SPV is allowed to invest only in treasury bills or deposit it into account at commercial banks or financial institutions rated no less than “T1+/AA-” for an investing period of less than 365 days, or no less than “AAA” for a longer period. Similarly, for investments in corporate debt instruments, the credit rating of such debt instruments must be T1+/AA- and AAA for investment periods of less than one year and more than one year, respectively. Investing in these high quality assets usually generates income lower than SPV’s interest payments. Therefore, a negative carry risk is almost inevitable.

2.4.5. Concentration Risk

The credit risk of the pool tends to be higher if the lending portfolio is concentrated in a certain group of borrowers or geography. For instance, auto hire purchase receivables upcountry may incur higher losses than the same type of receivables in Bangkok, or credit card loans for low-income earners may have a higher probability of default than loans for high-income earners. Expected loss calculations must consider the proportion of borrowers in the pool, whenever there is a concentration in any high risk groups, so that the higher credit enhancement level will be required accordingly.

2.4.6. Liquidity Risk

Since interest and principal payments must be paid on time, liquidity of the SPV is a major concern. In credit rating, any delay, even in paying interest, is considered a default event though the liquidity shortfall may be temporary. Thus, the transaction’s structure usually has a reserve account to retain enough cash to meet all expenses for at least one payment period. In some cases, the sponsor or trustee will step in to make advance payments during time of liquidity shortfalls.

2.4.7. Prepayment Risk

Prepayment risk or refinancing risk happens regularly in residential mortgage loans when interest payments are higher than the market interest rate. Rising prepayments will impact the cash inflow of the instrument, as both yield and the pool’s average life will be less than expected. Lenders, sometimes, set up rules to avoid prepayment risk. For example, some loans are not allowed to be redeemed during the first 3-5 years, or a penalty fee is applied for prepayment. The penalty fee can be based on the percentage of outstanding loans or the expected income from interest payment if no prepayment, which is called a “Yield Maintenance Penalty”, which is the difference between income that lenders expected to receive and the return that lenders expected from investing the prepayment amount in low-risk assets.

2.4.8. Set-off Risk

Borrowers in the securitization may have other contracts or financial transactions with the originator. In the event that an originator is a financial institution, whose clients are both depositors and borrowers, goes bankrupt, clients may choose to offset the balance between their deposits and outstanding loans, causing a shortfall of cash flow to repay the instrument. If the borrowing contract does not prohibit borrowers to set-off deposits and loans with the financial institution, the transaction structure must have a reserve or some sort of credit enhancement to cover this risk. In the event the borrowing contract prohibits setting-off balances, the analyst still needs to obtain legal opinion about the legal enforceability of such a clause in the contract.

2.4.9. Interest Rate Risk

Borrowers sometimes pay floating interest rate. Residential mortgage borrowers may make their interest payments at the Minimum Lending Rate (MLR), whereas interest payments to debentureholders are fixed rate. When market interest rates decline, excess spread falls as a result. In the case where collateral coupon and bond coupon are based on different benchmarks, the spread may not be constant, creating a basis risk. The transaction's structure will usually try to protect against interest rate risk by implementing certain actions:

- *External Hedge* – A popular method of protection against interest rate risk involves a hedged contract with a third party. However, this method will incur additional cost for the SPV. In addition, the credit rating agency needs to assess the rating of the counter party as well.
- *Early Amortization Trigger* – This method helps mitigate risk, but will not eliminate risk.
- *Credit Enhancement Coverage* – Normal credit enhancement can be used to absorb certain interest rate risk. However, if the interest rate moves out of the expected range, credit enhancement may not be able to eliminate the risk.

3. Legal and Tax Analysis

The credit rating of securitized debt is based on the credibility of cash flow from assets that are totally separated from other assets of the seller/originator, rather than based on the credibility of the originator/seller. The seller may have no credit rating or a far lower rating than the rating of the securitized products. In rating securitized bonds, the process involves analyzing all transaction documents and obtaining legal opinions. If the rating of the bond is higher than the rating of the seller/originator, the analyst must ensure that the owner of the assets is a bankruptcy remote entity, such as a special purpose vehicle (SPV). The transfer of assets to the SPV must be a true-sale

transaction. In addition, bondholders' representative, must have claims over the assets and mortgaged properties. A full review of all transaction agreements is required to ensure that there are no clauses that would allow related parties to avoid their responsibilities and obligations.

TRIS Rating assesses four factors from a legal perspective.

3.1. True Sale

In general, a true sale involves the true transfer of assets from the originator to the SPV. A legal counsel must provide an opinion that such a transfer is, legally, a true sale. According to Article 20 of the Securitization Act B.E. 1997, true sale means (1) a transfer that is subject to payments at market or fair price (2) the SPV must assume risks and returns of the underlying assets (3) the SPV must hold the rights over returns of the underlying assets. A true sale assures that the assets transferred to the SPV cannot be claimed by the originator or the originator's lenders should the originator become insolvent.

3.2. Bankruptcy Remoteness

It is crucial for the credit rating agency to be confident that the SPV that issues the instruments is a bankruptcy remote entity. Bankruptcy remoteness means that the SPV will not be adversely impacted by the bankruptcy of the originator and the SPV itself is a bankruptcy remote entity, which means that the SPV will not enter into any activities or obligations other than what is specified in the program. In general, the SPV should have the following characteristics:

3.2.1. Limitations on objects and powers

An important characteristic of making the SPV a bankruptcy-remote entity is that its objects and powers are limited only to what is specified in the transaction agreements. The SPV will not be permitted to engage in any activities not specified in the agreements. This is to reduce the risk of SPV bankruptcy from businesses unrelated to the securitization process. In accordance with the Securitization Act B.E. 1997, the SPV will not engage in any activities other than what are allowed and authorized under the program, except upon receipt of approval from the Securities Exchange Commission (SEC).

3.2.2. Borrowing Restrictions

An SPV established to raise funds under the securitization cannot incur more debt than specified in the agreements; notwithstanding that there are various tranches of the issued instruments that may have the same or different ratings. In some cases, the SPV may issue additional subordinated non-recourse debt as long as there is no impact on its ability to service its debt to the bondholders.

3.2.3. No merger or reorganization

As long as the rated debt is outstanding, the status of the SPV as a bankruptcy-remote entity must not change due to merger or consolidation with other entities, reorganization, dissolution, or the sale of assets. The SPV is required to submit a written notice to the credit rating agency before amending any of its related constituting documents.

3.2.4. Independent from Originator

The SPV must be independent from the originator. The originator's creditors must not have the right to claim SPV's assets in the event of the originator's bankruptcy. The SPV must clearly specify that it is separated from the originator. For example, The SPV must have its own accounting book, must not share an office and equipment with the originator, must have its own employees, and must not be responsible for the originator's debt.

3.3. Security interest over underlying assets

A legal counsel must express opinions on the transfer of assets from the originator to the SPV and/or debentureholders, the legality and enforceability of such transfer and transferees' rights over the assets. In a case where the transfer of underlying property is needed, such as a decline in the originator's credit rating or a deterioration of asset quality of the securitized pool, the legal counsel must give an opinion that such transfer is legal.

3.4. Tax Evaluation

From the credit rating agency's standpoint, a tax opinion on the transaction, obtained from a recognized expert is required, as it can directly impact cash flow used to repay debt. Any taxes that the SPV is liable to pay, but which not been accounted for by the financial advisor in the cash flow models, may potentially cause the cash flows to be insufficient for debt service. Examples of related taxes are income tax, value added tax, specific business tax, transferring fees (in the cases of the transfer of land or cars), etc.

4. Rating Assignment

After having fully scrutinized the asset quality, securitization structure, and legal and tax, the analyst presents the results to the rating committee, who will provide its opinion on the proposed credit rating, credit enhancement level, and recommendations on other issues.

5. Monitoring Process

After the credit rating is assigned to the rated debt, TRIS Rating will regularly monitor the performance in order to ensure that the rating still reflects quality and performance of the underlying assets, and that the underlying assets are capable of generating cash flow that is sufficient to service the obligations within the timeframe. The transaction administrator will submit monthly or quarterly performance reports for TRIS Rating. In addition, TRIS Rating will also monitor the liquidity provider, insurer, and swap provider to ensure the credit quality of these parties does not change from that which was

previously specified. Any changes that may impact the rating quality of the transaction will be evaluated to determine the need for credit rating adjustments.

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