JULY 7, 2022 ASSET-BACKED SECURITIES



RATING METHODOLOGY

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US Vacation Timeshare Loan Securitizations Methodology

This rating methodology replaces *Vacation Timeshare Loan Securitizations Methodology* published in April 2020. We clarified our approach on guarantees in the "Pool Size" section, and we made limited editorial updates.

Scope

This rating methodology applies to securities backed by US vacation timeshare loans.

In this methodology, we explain our approach to assessing credit risks for securitizations backed by US vacation timeshare loans, including quantitative and qualitative factors that are likely to affect rating outcomes in this sector. We discuss the asset and liability analysis, including the securitization structures, as well as other considerations. We also describe our monitoring approach.

Rating Approach

In this section, we summarize our approach to assessing credit risks for securities backed by US vacation timeshare loans including quantitative and qualitative factors that are likely to affect rating outcomes in this sector.

Asset Overview

A vacation timeshare represents long-term or perpetual access to furnished, fully serviced vacation properties for a fixed or variable periods during the calendar year. These timeshare interests are marketed to consumers essentially as a form of prepaid vacation. Timeshare developers commonly offer financing, and these loans, secured by the timeshare interests, are often securitized.

In terms of collateral classification, consumers can purchase basically one of three forms of timeshare vacation ownership interests (VOI). The first is a right-to-use lease that provides access to specific properties calculated on the basis of weekly intervals. The second is fractional ownership. While both forms of VOI provide for periods of access to specific property units, the latter is partial ownership in real property documented by a fee-simple deed. The third is the "point" system, which is the most prevalent form of timeshare. Point programs offer clients the greatest flexibility in terms of vacation timing, length of stay, location, accommodation size and resort ranking. For originators, the point system allows for the most efficient and responsive method for pricing resort access.

Factors that may provide some support to the quality of timeshare loans include the permanent ownership nature of most timeshares upon full repayment of the loan (as well as the owner's ability to pass on the asset to heirs), which may discourage obligors from forfeiting the accrued equity in their asset.

Analysis Framework

We assign ratings primarily based on expected gross defaults and the variability around those expectations for the pool of timeshare loans backing the securities. Credit for recoveries is generally limited to a range of 0% to 15% due to the limited secondary market for VOI as well as the dependence on the sponsor's remarketing efforts for defaulted VOIs.

The sponsor's ongoing role as a property manager and servicer, which may require substantial financial outlays to remarket a property securing a defaulted timeshare loan, is a source of linkage between timeshare asset-backed securities (ABS) ratings and the sponsor ratings. For example, in a bankruptcy scenario, a sponsor might lack the resources required to remarket effectively. We address these issues again in some detail below.

As with all rating methodologies, in applying this methodology, where appropriate, we consider all factors that we deem relevant to our analysis. In addition to quantitative assessments, our rating committees also consider other various qualitative and quantitative factors, taking into account the unique characteristics of each transaction.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on ratings.moodys.com for the most updated credit rating action information and rating history.

Asset-level Analysis

In this section, we explain how we analyze the underlying assets that back US vacation timeshare loan securitizations and how we estimate potential losses on those assets.

Expected Gross Loss on the Securitized Timeshare Pool

Timeshare securitization sponsors usually provide us with two basic forms of gross loss data. The first is defined as "portfolio" loss data, which typically tracks the sponsor's total portfolio losses occurring in each reporting period as a percentage of that same period's total outstanding portfolio loan balance. The second form of loss data is defined as "static pool" data, which tracks the performance of each specific "vintage" pool originated by the sponsor through the calculation of a ratio representing the cumulative losses for each specific vintage pool to the original vintage pool balance. We consider the static pool analysis of loan losses to be more meaningful than the portfolio data because it avoids the statistical distortions precipitated by the application of aggregated loss statistics for a portfolio whose composition changes over time.

We determine the expected gross loss for a timeshare loan pool by comparing its characteristics to those of other securitized or non-securitized pools originated by the same originator/servicer. Vintage static pool analysis is the central component of the comparative process. Our goal in applying this actuarial approach is to produce reasonable estimates of the subject pool's performance.

For those sponsors who do not provide sufficient static pool data, we rely on available portfolio performance information in our projection of gross losses for the securitized pool. We may apply statistical adjustments and analytical assumptions to account for: (1) changes in managed portfolio size; (2) credit quality mismatch between the securitized pool and the total managed portfolio; and (3) the lagging effect that more seasoned timeshare loans have on managed portfolio performance.

Static Pool Analysis

Our projection of the expected gross loss for a timeshare pool begins with a static pool analysis of the following two performance measures:

- » Cumulative gross loss (CGL); and
- » Cumulative gross loss-to-liquidation (CGLTL)

The mechanics of static pool analysis based on the above two measures are relatively straight-forward and similar to the method applied for most other major ABS asset classes. Conclusions are further informed by additional available static pool metrics such as delinquency rates (30/60/90+ days) and monthly loss to liquidation.

Expected Cumulative Gross Loss

We adjust the static pool analysis results to derive a single loss projection for a proposed securitized pool. This adjustment may involve quantitative and qualitative analysis.

For more information, see, for example, our methodology that describes our approach to rating auto loan- and lease-backed ABS. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Quantitative Adjustments

The quantitative adjustments include mix neutral analysis² and seasoning adjustment.³

MIX-NEUTRAL ANALYSIS

Mix-neutral analysis is an analytical technique used to project losses in which the mix of discrete credit characteristics (e.g., loan to value [LTV], FICO scores, etc.) is held constant, thereby "neutralizing" the impact of mix changes over time.

We project the loss of the securitized pool based on the performance of the disaggregated sub-pools weighted by the proportions of assets with each characteristic in the securitized pool.

By holding selected credit characteristics (i.e., mix) constant, we can detect changes in performance over time without the noise introduced by changing credit mix.

SEASONING ADJUSTMENT

The seasoning adjustment accounts for losses prior to securitization and allows for a more refined view of the remaining losses investors may face. The resulting gross loss expectation may be higher or lower depending on the loss timing curve and prepayment speed.

The seasoning adjustment should account for (1) the amount of amortization and losses that have occurred on seasoned pools, (2) and the exclusion of certain delinquent loans in the securitization of seasoned pools.

Qualitative Adjustments

We consider the following list of primary pool characteristics in the adjustment process.

CONSUMER CREDIT SCORES

Consumer credit scores (e.g., FICO scores) are important indicators of loan performance for many consumer asset classes – including timeshare loans. We compare weighted average credit scores and their distribution from pool to pool in our estimation of aggregate pool losses.

DOWN PAYMENT PERCENTAGES

Down payment percentages are useful measures of the obligor's financial resources and liquidity as well as its "skin in the game" at loan origination. In the timeshare industry, it is standard for an obligor to put down at least 10% of the sale price at loan origination.

ORIGINAL MATURITIES AND SEASONING

Timeshare loans typically have original terms of 3 to 10 years with some of the higher balance/select customer loans running as long as 15 to 20 years. Most loan pools have a weighted average original term of approximately 10 years.

As discussed, the seasoning adjustment may result in a higher or lower gross loss expectation depending on the loss timing curve and prepayment speed. Compared to other amortizing asset classes, losses and prepayments in the early life of a timeshare pool are not as stable. As a result, the seasoning is an important component in forecasting losses. A more seasoned pool features obligors with higher equity stakes in their

² For more information, see, for example, our methodology that describes our approach to rating auto loan- and lease-backed ABS. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

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timeshare properties and a correspondingly lower propensity to default. Therefore, we adjust both our loss projection and variability for seasoning.⁴

OBLIGOR GEOGRAPHIC CONCENTRATIONS

Obligor geographic concentrations are typically a reliable indicator of pool quality across all consumer asset classes. Pools with higher concentrations of loan balances due from obligors located in economically weaker or distressed regions generally produce higher losses. Additionally, obligor concentrations from regions with limited industry diversity may increase the pool's vulnerability to obligor layoffs precipitated by the contraction or failure of common employers.

DOMESTIC VS. FOREIGN OBLIGORS

Foreign obligors are inherently riskier. Cross-border collections are operationally more difficult, time consuming and expensive than those required for domestic delinquencies. We adjust our loss expectation based on the performance and relative concentration of a foreign obligors cohort.

PRE-COMPLETION LOANS

Pre-completion loans are timeshare loans for which the related unit is not completed or is not ready for occupancy by timeshare owners. The motivation for the purchase of such timeshares is a form of financial incentive (usually a purchase price discount). As a form of executory contract, pre-completion loans create developer as well as obligor default risks for the securitized pool as the obligor may have a legal foundation for non-payment if the unit associated with the timeshare loan is not completed by the contractually specified date. Typically, pre-completion loans are only securitized by sponsors that are relatively strong financially with sufficient loan performance history for these loan types.

The contingent risk associated with pre-completion loans is covered by a pre-completion loan reserve. This reserve is typically sized on a per-loan basis according to the expected date of receipt of the certificate of occupancy (CO). A higher percentage of the loan balance is required to be deposited in the pre-completion reserve fund for longer-dated expectation of CO delivery.

FORCE MAJEURE-SUSCEPTIBLE LOANS

A timeshare loan is reclassified as "force majeure loan" by the servicer, according to predetermined standards, when a natural disaster or act of terror has a direct and material impact on the obligor's ability to make payments due to disruption of employment or to a place of primary residence. Upon such a determination, the servicer will agree to defer loan payments for a specified grace period.

Timeshare loan securitization structures address this risk through the incorporation of a force majeure loan reserve account designed to provide temporary coverage for the resulting cash flow shortfall. However, the cash in the force majeure loan reserve account comes from the excess spread. Deficiencies in cash collections could affect the ability of the indenture trustee to allocate sufficient funds to the force majeure loan reserve. Accordingly, we consider obligor geographic concentrations in regions particularly susceptible to force majeure events.

LOAN BALANCES

Given the relatively low balance of timeshare loans, obligor concentration risk is generally not a material credit issue within most securitized pools. This is especially true of pools with a balanced product mix reflecting a broad spectrum of obligor income profiles and property types. Loan pools with a higher mix of higher balance loans secured by higher-end properties may present greater concentration risk issues. This concentration risk tends to be exacerbated toward the tail end of the transaction as loans with lower

⁴ For more information, see our methodology that describes our approach to rating auto loan- and lease-backed ABS. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

balances and shorter terms pay off. This back-end risk is partially mitigated by a non-declining reserve account.

UPGRADES (PREPAYMENTS AND EXTENSIONS)

While prepayments due to refinancing opportunities are common among most consumer asset classes, especially residential mortgages, they rarely occur in the timeshare sector. VOI upgrade-driven prepayments do occur, however. When an obligor chooses to upgrade to a better or larger timeshare, there is one of two options for the underlying loan. In most cases, a new loan is created and the original loan is retired. In other cases, the balance of the old loan is increased and the maturity usually extended. The former produces a prepayment (without a penalty) while the latter generates an extension. Within the current generation of timeshare securitizations, almost all the upgrades are treated as prepayments.

Unlike regular extensions that the servicer may grant to an obligor who needs more time to pay their obligation, extensions triggered by upgrades may be credit positive. Obligors who seek upgrade(s) (a) are more experienced and satisfied with the product; and (b) have exhibited a payment history consistent with the requirements for a higher credit line.

Expected Gross Loss Variability

As discussed above, our projection of expected gross losses on securitized timeshare pools is based in large part on empirical data. The determination of variability for these expected gross losses is a more subjective and challenging analytical exercise. Additionally, we consider the unpredictability of economic cyclicality in both its timing and severity. We address this analytical problem by applying a set of core pool performance factors, both in absolute terms and in relation to the factors applied to the rating of comparable securitizations. This process involves posing the following questions:

- » How does the subject pool compare to historical pools?
- » What were their relative qualitative strengths and weaknesses?
- » How have the historical pools performed?
- » What were the key drivers in their performance variability?

In addressing these issues, we consider key loss volatility factors. These include:

- » Historical performance data
- » Pool characteristics
- » Prefunding and revolving periods
- » Servicer capabilities and financial strength

Historical Performance Data

While vintage static pool analysis is central to the estimation of expected gross loss, its value should be considered within the context of source data quantity, quality and relevance. In other words, estimations based on comparisons to a greater number of pools with comparable characteristics over a longer period are considered more reliable and meaningful than those derived from issuers with shorter and narrower origination and securitization histories.

Pool Characteristics

Many of the pool characteristics that affect the loss estimate (e.g., seasoning, geographic concentrations, as well as the balance of pre-completion and force majeure-susceptible loans as a percentage of total pool) are also expected to affect loss variability.

ASSET-BACKED SECURITIES

Prefunding and Revolving Periods

If the proposed transaction includes a prefunding period (during which collateral is built up to the level required for a securitization) or a revolving period (during which loans are either paid off, substituted or added), the pool risk profile may shift. Therefore, we consider the risk of the originator lowering underwriting standards during a securitization's revolving or prefunding periods to be a probable source of increased performance volatility.

Servicer Capabilities and Financial Strength

As with all forms of securitizations, the ability of the originator/servicer to perform its operational functions is critical to the creation and effective collection of transaction collateral asset pool obligations. For timeshare transactions, the sponsor/servicer's financial strength is even more important because customer satisfaction is crucial to timeshare loan performance. The obligor's willingness to pay depends on the upkeep of the properties. High occupancy of the resort will ensure sufficient maintenance fees for upkeep. In the event of servicer default, the homeowners' association can appoint another manager to collect maintenance fees and maintain the property.

Although a secondary market for VOIs does exist, it is typically weak and limited. This general illiquidity means that VOI resales are usually a protracted process often resulting in deep discounts to their face value. Therefore, by necessity, recoveries on defaulted VOIs almost exclusively depend on the party most capable of managing the remarketing process – the sponsor itself. Furthermore, resiliency of the VOI resale price largely depends on (a) the sponsor's ability to maintain the resort; and (b) effective inventory control.

Given the importance of the originator/servicer to the recovery process, we typically only give recovery credit (measured as a percentage of gross losses) to timeshare loan pools associated with investment-grade sponsors, with less credit given to the higher-rated securities. Also, the amount of recovery we assume is inversely related to the ABS rating. Typically, the range of recovery is from 0% to 15%.

Structural Analysis

In this section, we explain how we analyze the structural features of a US vacation timeshare loan securitization, including how we allocate cash flows to different classes of securities, taking into account asset cash flows and available credit support.

Transaction Structure

Timeshare loan securitizations are typically protected by a combination of relatively conventional credit and liquidity enhancement mechanisms, including: (a) overcollateralization; (b) reserve accounts; (c) subordination (though some transactions may be single class); and (d) excess spread. In addition to the precompletion loan credit reserve fund and the force-majeure liquidity reserve, timeshare loan securitizations frequently benefit from a general (liquidity) reserve account.

Timeshare senior/subordinated transactions typically have a pro-rata pay structure. Many timeshare securitization structures include triggers for the conversion of pro-rata pay structures to sequential pay and the trapping of all the excess spread. Pool performance-driven triggers typically include: (a) the average of the delinquency levels for the last three due periods exceeding a certain percentage; (b) the average of the default levels for the last three due periods exceeding a certain percentage; and (c) the gross loss level exceeding a certain percentage. All transactions also provide for an automatic accelerated amortization upon an event of default (e.g., non-payment of interest or principal on any note; non-performance, or breach, of any other covenant or warranty; certain events of bankruptcy, insolvency, receivership or

reorganization of the originator/servicer; or the compromising of the security interest in the underlying timeshare loan collateral).

Credit Enhancement

We assess excess spread credit based on breakeven cash flow analysis. Based on cash flow modeling, we calculate breakeven losses for the rated securities using various loss timing and prepayment curves. The breakeven loss for a given class of rated securities is the level of pool losses above which the applicable securities will suffer a loss of principal and interest. These breakeven losses, together with the assessed expected gross loss and variability around the loss are inputs for determining the assigned ratings for the securities.

As the expected loss may vary from pool to pool, the level of coverage, which we measure as the ratio of total credit enhancement to expected gross losses, to achieve a target rating depends upon the securitization in question.

Coverage ratios can vary (sometimes significantly) for the same rating level, which demonstrates the importance of loss variability analysis in the overall assessment of a securitization's creditworthiness.

Other Considerations

Along with our asset, structural and liability analysis, we consider other quantitative and qualitative factors in our credit analysis such as legal risks, reliability and completeness of historical and portfolio data, and environmental, social and governance (ESG) considerations.

Legal Risks

Our analysis of the legal risks associated with the structure of timeshare loan securitizations focuses on the potential bankruptcy of: (a) the transaction sponsor; and (b) the securitization entity. In both cases, the risk to investors arises either: (a) from the possibility that creditors unrelated to the securitization might make a claim on the securitized assets; or (b) that a bankruptcy court would impose an automatic stay on the transaction cash flows, thereby interrupting scheduled payments to investors.

The form of the timeshare is typically (i) a fractional interest; or (ii) a right-to-use purchase contract. The form of the timeshare loan is typically a promissory note secured by either (a) a first mortgage or deed of trust, in the case of (i) above; or (b) an interest in the share certificates issued by the resort's association, in the case of (ii) above.

Bankruptcy of the Sponsor

Our analysis of a potential sponsor bankruptcy involves an assessment of three key factors, namely whether:

- » the receivables have actually been sold (in what is often referred to as a "true sale");
- » the owner of the assets (the securitization issuer/special purpose entity, or SPE) would be substantively consolidated with the sponsor (often referred to as "substantive consolidation"); and
- » the securitization trustee can enforce its security interest and, potentially, ownership interest in the collateral (referred to as "perfection" of the security or ownership interest).

ASSET-BACKED SECURITIES

There is a direct correlation between the quality of transaction legal risk protection and our ability to rate the securitization bonds at a level higher than those assigned to the direct, unsecured obligations of the sponsor.

For timeshare loans, it is important to know whether the deeds conveying the timeshare interests to the timeshare owner could be subject to rejection as executory contracts under §365 of the Bankruptcy Code. Our analysis of this question focuses on a deed, rather than a contract, as the instrument through which the timeshare owner's interest is established. A bankruptcy proceeding should not be able to extinguish a timeshare owner's interest if the interest in the timeshare property is created by a real property deed evidencing a fee simple interest in real property. Under local law, the deed is recorded with the recording offices in each jurisdiction where a timeshare resort is located. Local law generally establishes that timeshare interests cannot be extinguished because of non-payment of association fees except pursuant to foreclosure because the timeshare interest constitutes an interest in real property. The law is unsettled in this area and the unique facts of each timeshare business and timeshare interest are important to gauge the risk of rejection in bankruptcy.

Ultimately, we expect that the facts and circumstances of each timeshare securitization will be evaluated in light of: (a) the nature of the asset; (b) the strength of local and transaction counsel opinions; and (c) the organization of the timeshare association as well as its relation with the sponsor.

TRUE SALE

In the event of sponsor bankruptcy, the bankruptcy court will determine which sponsor assets would be subject to an "automatic stay" and which would be exempt. A properly structured securitization minimizes the risk that timeshare loans transferred to the financing entity (but still serviced by the sponsor) might be reclassified as the sponsor's assets rather than the securitization SPE's assets. Should the bankruptcy court determine that securitized assets are subject to the automatic stay, remittance to investors of cash flows received from the asset pool could be (a) delayed (pending a final determination as sold assets); or (b) even indefinitely blocked (should the court judge that the original transaction was a financing, not a sale - thereby requiring reclassification as the bankruptcy estate's assets).

In determining whether the securitized assets are exempt from the automatic stay, the bankruptcy court will judge whether a "true sale" occurred at transaction closing. The court will arrive at its conclusion primarily on the basis of a test that measures the extent to which the risks and benefits of ownership have been transferred from the sponsor to the securitization trust. Relevant facts for our analysis of timeshare loan securitization legal protection include, but are not limited to: (a) the level of recourse retained by the sponsor (e.g., the level of permitted collateral substitution); (b) the economics of the transaction; and (c) the unequivocal intent of the parties. We expect that the bankruptcy court is unlikely to include the loans in the bankruptcy estate of the sponsor if the timeshare loan receivables truly have been sold. We note, however, that our assessment of this risk can only be based upon a "true sale opinion" of what a bankruptcy court would be expected to do – not what it will do. Nevertheless, our analysis also incorporates legal precedent as courts have confronted a number of fact-specific sponsor bankruptcy cases.

SUBSTANTIVE CONSOLIDATION

Substantive consolidation is an extraordinary remedy in which the bankruptcy court views the bankrupt sponsor as being indistinguishable from the securitization SPE. As a result, the securitization SPE's assets become consolidated with the sponsor's assets and are subject to the automatic stay in bankruptcy. Our legal analysis includes an assessment of the likelihood that the transaction might be subject to factors that have led courts to order consolidation in the past, including cases in which: (a) company records were intertwined to the extent that they could not be separated; (b) arm's-length dealings between the two companies had not been observed; or (c) boards of directors overlap. The risk of consolidation of corporate

entities is mitigated when the affiliated companies are organized and managed separately and all corporate formalities of separateness are observed in their ongoing governance.

FIRST PRIORITY PERFECTED SECURITY INTEREST

Integral to our analysis of the legal risks associated with the bankruptcy of the sponsor or the servicer is an assessment of the trustee's ability to enforce its ownership or security interest in each of the timeshare loans within the securitized pool. Key to the effectiveness of this enforceability is the trustee's possession of a "first priority perfected security interest" in the subject loans. As implied, this means the trustee has a security interest that is free from imperfection that might create doubt, and is first in line (superior to the claim of any other party). Such perfection is essentially achieved in three steps. First, title to the subject loans must be cleared of all existing liens. Second, all other potential interested parties must be put on notice of the trustee's interest in the subject asset pool by registering the subject loans with the appropriate state registrars pursuant to Article 9 of the Universal Commercial Code (UCC).

Regardless of the characterization of the VOI loans, the trustee should have a first priority security interest in such VOI loans. Perfection of security interests in timeshare loans is governed by state law and is usually achieved through the filing of UCC financing statements or, if required under state law, through possession of the promissory notes by the security interest holder or a custodian for the security interest holder. The perfection of liens or security interests in the mortgages and the recordation of deeds are also governed by state law and may be the subject of local counsel opinions for transactions with geographic concentrations.

Bankruptcy of the Securitization Entity

Legal entities for which the likelihood of both an involuntary and a voluntary bankruptcy are very low are generally referred to as "bankruptcy remote." Securitization entities are typically structured in this manner. Our analysis of the bankruptcy potential of such securitization entities focuses on two main assessments: (a) the likelihood that a third-party creditor could successfully petition the entity into an involuntary bankruptcy proceeding; and (b) the likelihood that the vehicle would voluntarily seek the bankruptcy courts' protection. With respect to involuntary bankruptcy, we assess the strength of the structure's risk-mitigating characteristics. These include: (a) restricting the securitization entity's assets to the timeshare loan receivables; (b) restricting its indebtedness to the asset-backed securities; (c) limiting activities that could create contractual or other liabilities; and (d) including agreements with the sponsor and other contracting parties prohibiting the signatories from petitioning the court for the dissolution, liquidation or bankruptcy of the securitization entity.

Similarly, factors that mitigate the risk of a voluntary bankruptcy include: (a) charter documents of the securitization entity that require directors who are independent of the affiliated company; (b) a unanimous vote of all directors as a condition to filing a voluntary bankruptcy; and (c) limitations on the firing and replacement of the independent directors.

Data Quality Evaluation

We assign ratings to securities issued by a US vacation timeshare loan transaction when we have sufficient information from reliable sources. Data quality is also important throughout the life of a US vacation timeshare loan transaction, as described in the "Monitoring" section.⁵

For more information, see our approach to evaluating date quality in structured finance transactions. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Environmental, Social and Governance Considerations

Environmental, social and governance (ESG) considerations may affect the ratings of securities backed by a portfolio of US vacation timeshare loans.

We evaluate the risk following our cross-sector methodology that describes our general principles for assessing these ESG issues and may incorporate it in our analysis.⁶

Monitoring

In this section, we describe our approach when monitoring transactions. We generally apply the same key components as we apply when assigning ratings, except for those elements of the methodology that could be less relevant over time.

Transaction Performance

Our approach to monitoring the ratings of outstanding timeshare ABS transactions is similar to the approach used to assign the initial ratings, in that its primary consideration is the estimation of the expected gross loss and variability around that loss.

We track several metrics when monitoring the performance of outstanding timeshare ABS transactions. These metrics can be broadly categorized as those relating to the sponsor/servicer, the underlying collateral, the credit enhancement, and the legal structure. Assuming no operational disruption or adverse changes to the legal structure, the performance of the timeshare ABS transaction is closely linked to the performance of the underlying collateral. The starting point is typically the monitoring of the collateral performance relative to our initial expectations. Factors including the economic environment, delinquency rates, recovery rates, loan modifications, prepayments, and the availability of excess spread are useful in evaluating a transaction's performance.⁷

The key metric is the cumulative gross loss that we expect the transaction to incur. At any point in a transaction's life, we use a combination of three approaches to quantitatively assess the expected lifetime cumulative gross defaults, from which cumulative losses are then derived. Our primary method for assessing cumulative gross defaults is the same as the primary method employed at a transaction's closing, and is based on the level and shape of the cumulative gross default curves and cumulative gross default-toliquidation curves, with additional consideration given to the current economic environment, performance of similar pools, and the nature of the asset class. The level where the two curves converge will be the cumulative gross defaults of the pool. In cases where the gross default-to-liquidation curve is still above the cumulative gross default curve, or where monthly gross defaults are higher or lower than the stable level, we also use a cash flow approach. The second, or cash flow approach, first measures historical rates of monthly gross defaults, scheduled amortization, and prepayments, then projects future rates according to the economic environment and pool seasoning, and finally runs cash flows to approximate future pool gross defaults. For example, in challenging economic environments, we would assume that the observed elevated average gross default rates and depressed prepayment rates continue through a projected period of continued stress before stabilizing and eventually reaching levels consistent with historical, non-stressed averages. The third approach we employ to triangulate estimated lifetime cumulative gross defaults is a

⁶ For more information, see our methodology that describes our general principles for assessing ESG issues. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

For example, in methodologies where models are used, modeling is not relevant when it is determined that (1) a transaction is still revolving and performance has not changed from expectations, or (2) all tranches are at the highest achievable ratings and performance is at or better than expected performance, or (3) key model inputs are viewed as not having materially changed to the extent it would change outputs since the previous time a model was run, or (4) no new relevant information is available such that a model cannot be run in order to inform the rating, or (5) our analysis is limited to asset coverage ratios for transactions with undercollateralized tranches, or (6) a transaction has few remaining performing assets.

regression based on the pool factor in each period to the cumulative gross defaults for the corresponding period. Finally, once we estimate a pool's lifetime cumulative gross defaults using these three methods, we derive the remaining gross defaults and then reduce them by a recovery assumption ranging from 0% to 15% to determine the pool's remaining expected gross losses.

We compare the remaining expected gross pool losses to existing levels of credit enhancement for each rated tranche of a transaction. We use these comparisons as the basis to assess whether the current ratings assigned to the securities are still appropriate based on existing levels of credit enhancement, which typically includes subordination, overcollateralization, reserve account and excess spread. We determine excess spread benefit by multiplying the annual excess spread by a pool's projected remaining weighted average life and excess spread utilization rate. The utilization rate depends on the actual utilization rate in the most recent periods and the current default to liquidation trends.

Pool Size

In assessing pool diversity for US vacation timeshare ABS transactions, we look beyond the nominal number of borrowers in a pool to take into account the actual size of the borrowers' loans. We express this pool diversity measurement, referred to as the effective number, in terms of equal-sized exposures, using the formula in Exhibit 1.

We typically use loan-level information to calculate an effective number of borrowers or loans.

EXHIBIT 1

Effective Number of n Borrowers (or Loans) =
$$\frac{1}{\sum_{i=1}^{n} (W_i)^2}$$

Where:

» W_i is the weight of a borrower (or loan) i in the total pool.

Source: Moody's Investors Service

We do not assign nor maintain ratings on securities backed by US vacation timeshare loans with the following characteristics:

- » Transactions without support mechanisms, such as a credit enhancement floor or reserve fund floor, when the underlying pool has decreased to an effective number of borrowers or loans of 75 or below. If we cannot obtain the effective number, we will use a threshold of 130 instead.
- » Transactions with a reserve fund or credit enhancement floor, which partially compensates for the increased exposure to single borrowers, when the underlying pool has decreased to an effective number of borrowers or loans of 50 or below. If we cannot obtain the effective number, we will use a threshold of 90 instead.

However, we make exceptions for securities with ratings that do not rely on our assessment of individual obligor creditworthiness, such as those that benefit from a full and unconditional third-party guarantee, whether at pool or security level,⁸ or for securities that benefit from full cash collateralization.

For more information, see our rating methodology for assessing transactions based on a credit substitution approach. A link to a list of our sector and cross-sector methodologies can be found in "Moody's Related Publication" section.

Moody's Related Publications

Credit ratings are primarily determined through the application of sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. A list of sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings, please click <u>here</u>.

For further information, please refer to *Rating Symbols and Definitions*, which includes a discussion of Moody's Idealized Probabilities of Default and Expected Losses, and which is available <u>here</u>.

» contacts continued from page 1

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