Asset-Backed Securitization Ratings Methodology

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Introduction

The asset-backed securities market in the U.S. has evolved from the first equipment lease and auto loan deals issued in the mid-1980s to a dynamic market where a panoply of consumer assets, commercial assets, operating assets and nontraditional assets are being securitized, and new asset classes and structures continue to emerge and develop. Despite the contractions that occurred in the structured finance markets during the 2007 financial crisis and its aftermath, ABS securitizations continue to play a vital role in the capital markets.

To respond to the market's evolving needs, Morningstar Credit Ratings, LLC (Morningstar) employs a principles-based approach to assigning and monitoring ratings on ABS. Morningstar's multifaceted analytical framework incorporates the following seven areas of analysis common to ABS transactions: legal structure, asset quality, transaction structure, credit support, cash flow analysis, originator and servicer quality, and counterparty risk. The principles discussed in this criteria report represent Morningstar's overarching framework for assigning and monitoring ratings of U.S. ABS transactions.

Section 1 - Legal Structure

The starting point in Morningstar's analysis is evaluating a transaction's legal framework. Morningstar reviews the legal structure and opinions provided to us in order to confirm that the cash flow generated by the securitized assets will not be impaired. The potential bankruptcy of the originator or other transaction parties, the trustee's lack of a first priority perfected security interest in the assets and tax considerations could potentially diminish the cash flow derived from the assets.

Bankruptcy Considerations

Of fundamental importance is that the transaction is bankruptcy remote. Bankruptcy remoteness isolates the securitized assets from the corporate credit risk of the originator so that the cash flow generated by those assets is available to make timely interest and principal payments on the debt that the assets secure.

Bankruptcy remoteness is analyzed from two perspectives. The first factor is whether a "true sale" exists, whereby the assets have been transferred from the originator to the special purpose vehicle, or SPV, either directly or indirectly, so that if the originator were to become the subject of an insolvency proceeding, the securitized assets would not be part of the originator's bankruptcy estate. The second factor is whether "nonconsolidation" exists, whereby the originator and SPV are separate entities so that if the originator were to become subject to an insolvency proceeding, the SPV's assets and any proceeds would not be substantively consolidated with the bankruptcy estate of the originator.

Factors that support bankruptcy remoteness include the SPV's limited purpose and business activities, the inclusion of an independent director on its board of directors, as well as limits on the SPV's ability to incur debt or to merge with other entities. Morningstar evaluates the transaction documents and structural elements of the transaction to make true sale and nonconsolidation determinations. Among the factors that we focus on in determining whether a transfer is a true sale are whether the originator or the SPV bears the risk of loss on the transferred assets; whether the SPV has recourse to the originator for losses on the transferred assets; whether the SPV paid the originator fair consideration for the assets; whether the parties intend for the transfer to be a sale; and whether the originator has the obligation to repurchase the transferred assets. For loan originators/sellers that are not subject to the U.S. Bankruptcy Code, such as banking institutions, a first perfected security interest may be sufficient to achieve legal isolation of the securitized assets.

Some of the factors that are analyzed in determining whether the originator and SPV should be substantively consolidated are: the degree to which the originator and its affiliates maintain a separate existence from the SPV; whether third parties would reasonably rely on the assets of the SPV to satisfy the obligations of the originator and vice versa; whether either party is liable for the payment of the liabilities of the other; and whether either party guarantees the liabilities of the other.

Morningstar expects to receive legal opinions from the securitization transaction counsel that address the various transfers in the transaction and provide assurance that in the event of the bankruptcy or insolvency of the originator/loan seller, the transfer of the securitized assets from the originator/loan seller to the SPV would not be part of the originator's/loan seller's bankruptcy estate, and that the SPV would not be substantively consolidated with the assets of the originator/loan seller.

Additional legal opinions that Morningstar expects to receive are opinions that address the perfection of transfers of assets, including the security interest in favor of the trustee. This is important in that the trustee must be perfected in the collateral in order to exercise legal rights to any liquidation proceeds from the collateral either as recoveries on defaulted receivables or as a source of principal repayment. The security interest opinion should provide assurance that the security interest has been validly created and that, based on a certificate provided by an officer of the servicer and actions described in the opinion, the necessary steps have been taken to perfect the trustee's security interest in the assets.

In addition, Morningstar expects to receive a legal opinion addressing the SPV's tax liability. A tax liability can arise from a tax on the income of the SPV or a tax on the transfer of the assets. Any tax liability incurred by the SPV could erode cash flow that is available for making interest and principal payments on the securities. Morningstar expects that the form of SPV used will not result in any tax leakage from the transaction structure or, if taxes are incurred, the tax amount can be quantified so that it can be factored into the cash flow analysis.

Finally, Morningstar will take into account any legal issues that pertain to specific asset classes and may impact the trust's legal rights to asset proceeds. For example, Morningstar would take into account Bankruptcy Code Section 365, which pertains to leases and Section 1110, which pertains to aircraft and vessels.

Representations and Warranties

Most transactions permit only eligible assets to be included in the securitization and will include a list of eligibility criteria. Eligibility criteria vary by asset class but usually include that the asset is not delinquent or defaulted, that the obligor is not insolvent and that the originator has the ability to transfer the asset.

Typically, ABS originators provide investors with representations and warranties regarding the assets that are securitized in a particular transaction, as well as enforcement mechanisms, which require a breach of a representation or warranty to be remedied when the breach materially and adversely affects the value of the assets or the interests of the investors. Morningstar will analyze the risks to the transaction and how each transaction provides for determining whether a breach has occurred, the available remedies, and the specific procedures to enforce those remedies.

Appropriate remedies should include reimbursement to the securitization trust for breaches that have occurred. Typically, transactions require that in the event of a breach of representations or warranties receivables either will be repurchased or replaced with receivables that meet the eligibility criteria. The term of the repurchase obligation for any specific representation or warranty will be reviewed on a deal-by-deal basis. The repurchase price is generally defined as the par price on the unpaid principal balance plus accrued interest and any penalties the trust may have incurred as a result of a breach of the representations or warranties.

Section 2 - Asset Quality

The ABS sector is collateralized by a wide variety of consumer, commercial and operating asset classes. Morningstar will analyze the credit quality of the securitized assets in order to derive a base-case loss expectation, reflecting the probable performance of an asset pool, as well as losses under stress scenarios.

The focal point in Morningstar's credit risk analysis differs somewhat depending on whether the asset pool is static or revolving and on whether the securitization involves financial, operating or corporate assets. In transactions where the underlying pool is a static pool, the analytical focus is on the collateral characteristics, transaction structure and servicer quality to assess whether the asset pool will pay timely interest and principal by the legal final maturity date. Revolving pools, where additional assets are added to the collateral pool throughout the life of the deal, introduce an element of uncertainty in that the risk profile of the pool may shift. Investors are exposed to the risk that the originator may lower its underwriting standards and that there will be deterioration in performance.

Factors that mitigate this risk are the originator's long and consistent underwriting track record and representation that additional receivables will not be adversely selected. In addition, transactions that have a prefunding or revolving period will have eligibility criteria specifying the characteristics of the additional receivables. If a transferred receivable does not meet the eligibility criteria when it is transferred to the SPV, the originator may be required to either repurchase the receivable at face value or substitute an eligible receivable of equivalent value.

Eligibility criteria often include that:

- The assets are freely assignable with or without notice to the obligor.
- The assets are not in default.
- The assets have not been extended or restructured.
- The assets have been originated in accordance with the originator's underwriting guidelines.
- The originator holds legal title to the assets.
- The obligors are not in default.
- Obligor concentration limits do not exceed certain specified limits.

Morningstar will apply the same analytical framework in rating ABS transactions whether the underlying assets are financial, operating or corporate assets, and in all transactions will review the quality of an originator's/loan seller's servicing and collections as it impacts the level of defaults and recoveries. However, Morningstar places a greater emphasis on the originator's/servicer's capabilities in certain transactions where continuous, forward-looking servicing and the servicer's financial viability are or paramount importance to transaction performance. Two examples of transactions involving financial assets where this is the case are subprime auto transactions, where even a minor disruption or deterioration in servicing could severely impact loan performance, and timeshare transactions, where ongoing maintenance of timeshare properties and effective inventory control are crucial to loan performance.

In addition, the ongoing viability of the originator/servicer is critical to the performance of operating and corporate asset transactions in general. In operating asset securitizations, such as rental car fleets, aircraft lease, equipment lease and railcar lease, where the transaction relies on future cash flows generated from sales, service contracts or franchise fees and in corporate asset transactions, such as whole business securitizations, where all or part of a company's operating assets are securitized,, the originator's/seller's ongoing performance and viability are of paramount importance to transaction performance. Any deterioration in the servicer's financial condition may impair its ability to perform crucial functions, such as remarketing and re-leasing, or to continue to operate the business. Deal performance and financial trigger events usually are built into the transaction structure to protect investors and often are tied to delinquency levels, loss levels, the originator's/servicer's credit rating, bankruptcy or insolvency events, debt service coverage ratios, payment defaults and the remaining level of credit support.

Deriving a Loss Expectation

Morningstar evaluates the collateral characteristics of an asset pool to ascertain the credit quality of the underlying obligors and receivables. Our analysis includes comparing the pool characteristics to those of the issuer's managed portfolio and prior similar securitizations in order to gauge whether the issuer's historical portfolio performance and prior securitization performance are good indicators of performance for the proposed transaction pool. Among the collateral characteristics that Morningstar analyzes are obligor Fair Isaac Corp., or FICO, scores and an originator's internal obligor credit scores; original and remaining loan term; the amount of seasoning; loan type; coupons; down payment/loan-to-value ratios; and geographic concentrations.

Morningstar's approach for deriving expected losses for a given transaction depends on the type of asset class and granularity of the asset pool. For a diversified asset pool that has limited geographic, obligor and industry concentrations, we evaluate historical default and net loss data to derive an expected loss estimate. This entails developing a loss curve by analyzing an originator's historical static pool data and the cumulative loss-to-liquidation rate, which we may evaluate in order to project losses on pools that have not experienced their full loss cycle. Morningstar may adjust its expected loss estimate by taking into account certain qualitative factors. If, for example, an originator has loosened its underwriting standards but that change is not yet reflected in the performance data, Morningstar may increase the base-case loss estimate and/or the stress multiple. In addition to changes in origination standards, among the other factors, Morningstar will consider collateral seasoning, adverse pool selection, performance trends and changes in servicing practices.

For concentrated pools with only several large obligors, which is the case in dealer floorplan transactions for example, historical default data is less meaningful, and the creditworthiness of the obligors becomes the focal point of review. Typically, these asset pools consist of a few investment-grade obligors, may have large geographic or industry concentrations and only minimal expected credit losses. Morningstar's approach in rating these transactions is to default several of the large obligor concentrations within the pool to derive an expected loss and credit support requirement. The number of obligors to be defaulted depends on the rating level.

Section 3 - Transaction Structure

Morningstar's evaluation of a transaction's structural features largely centers on payment priorities, trigger events and remedies for those triggers, servicer termination events, events of default and early amortization triggers for revolving transactions.

Morningstar analyzes the payment mechanics for each transaction by reviewing transaction documentation and cash flow modeling output to understand how the cash flows generated by the asset pool are allocated to pay interest and principal to investors as well as transaction expenses to service providers. Transaction fees that are senior to interest and principal payments must be accounted for, especially if they are uncapped.

A transaction's principal allocation is crucial because it may result in credit enhancement growing or shrinking in relation to the outstanding pool balance. Typically, ABS payment structures are pro rata pay, sequential pay or bullet maturities. In a pro rata payment structure, interest and principal collections are paid proportionately to each tranche based on the tranche's outstanding balance. This allows the subordinate tranche to amortize while the senior tranche is outstanding. In pro rata pay deals, therefore, the timing of losses significantly impacts transaction cash flows. If the subordinate tranche amortizes before losses occur, then there may not be enough credit support available to cover future losses. Morningstar's analysis of pro rata pay transactions will include cash flow scenarios that incorporate back-ended losses to test the transaction's ability to withstand amortizing credit support.

In a sequential pay structure, the most senior tranche is paid in full before the mezzanine and subordinate tranches. In addition, sequential pay bonds may be repaid based on the stated maturity dates of the tranches, in which the earliest maturing bond is paid the amount of its tranche's share of principal collections until its balance is reduced to zero. Since sequential structures retain rather than amortize credit support, the timing of losses does not significantly impact cash flows.

In some transactions, bonds that initially are paid in accordance with a pro rata payment structure will convert to a sequential pay structure once a performance or credit-driven trigger event occurs. For example, timeshare loan securitizations that are senior/subordinated usually have pro-rata pay structures. Many of these transactions include triggers that convert the pro-rata pay structure to sequential pay and the trapping of excess spread. Typically, the conversion to sequential pay occurs upon the breach of pool performance triggers based on the average delinquency level and average default level for the prior three due periods exceeding a certain percentage and on the cumulative default level exceeding a certain percentage.

Transaction structures with bullet maturities repay principal on a scheduled payment date. Throughout the revolving period, the bonds are paid interest on each payment date but principal collections on the collateral are invested in newly generated receivables. The revolving period is for a predetermined length of time and is followed by either an accumulation period, which is set to allow for a sufficient amount of principal to accumulate by the scheduled payment date, or a controlled amortization period, which repays principal in equal scheduled payments. ABS transactions that have revolving periods/bullet maturities usually are backed by revolving assets, such as dealer floorplan loans, rental car receivables, and credit card receivables.

Section 4 - Credit Support

Morningstar reviews the composition of the credit support in a transaction and the structural provisions that pertain to it. The level of credit support is an important consideration in ABS transactions because it protects investors from losses on the underlying assets and enables the ratings on the bonds to exceed the originator's credit rating. Generally, Morningstar assesses whether the proposed credit support in a transaction is sufficient to withstand losses on the asset pool at a stress level that is in line with the desired rating on the bonds.

Morningstar will first determine base-case gross and net cumulative loss levels by evaluating historical performance data. We will make adjustments to the base-case estimate when the historical data is limited or questionable and also take into account the potential impact of economic conditions on asset performance. Morningstar will then stress losses by a multiple of the base case. Typically, Morningstar establishes stress multiples at each rating level and applies these multiples to the base case. In determining stress multiples to apply in a particular transaction, Morningstar will take into account several factors, including the historic volatility of losses in the applicable sector and in the originator's portfolio, the findings of the operational risk assessment and industry trends.

The form of credit support used in ABS transactions has evolved over time from the use of letters of credit from commercial banks in the early days of the ABS market to the use of internal credit enhancement that usually consists of a combination of subordination, excess spread, reserve funds, or overcollateralization.

Subordination

In transactions that have senior subordinated classes, losses on the asset pool are allocated in reverse sequential order beginning with the most junior tranche. Protection for the junior tranche is usually provided by overcollateralization, excess spread or a cash reserve fund that is tapped first to cover losses. Typically, protection available for the most senior tranches consists of the credit enhancement available to the junior tranche as well as the subordination that the junior tranche provides.

Excess Spread

Excess spread refers to the revenue remaining at the end of each payment date after all required payments to the bonds have been made and is equal to the difference between the net weighted average coupon on the assets and the funding cost of the rated bonds (weighted average note rate plus expenses). Depending on the transaction terms, excess spread may be utilized each payment period to pay principal to bondholders in an amount up to the outstanding realized losses and delinquent amounts for the asset pool.

Factors that impact the availability of excess spread include the timing of defaults or losses, the rate of principal repayment on the asset pool and interest-rate movements. Typically, available excess spread will be released at the bottom of the payment waterfall to the seller if no losses are realized in a given payment period. Transactions that trap unused excess spread in a reserve fund for use in future payment periods maximize the benefit of excess spread. A fast principal repayment rate will reduce the monthly excess spread that is available in current and future payment periods. Excess spread also may decline due to weighted average coupon compression, in which the interest collected on the assets declines because the higher coupon receivables repay or default at a faster rate than lower coupon receivables. Excess spread also will decline if the note rate on the bonds rises faster than the asset pool’s net weighted average coupon.

Reserve Funds

Cash reserve funds often serve as credit support in ABS transactions. A reserve may be fully funded at closing or funded with excess spread each month until it reaches a targeted amount. Typically, once the reserve fund reaches the targeted amount, unused excess spread is released from the deal.

Overcollateralization

Overcollateralization, another frequently used form of credit support in ABS transactions, may be created at closing when the dollar amount of the rated securities is lower than the amount of the asset pool securing the transaction. Overcollateralization also is created in transactions in which excess spread is used to repay principal, which accelerates the principal paydown of the bonds. The resulting overcollateralization is available to cover losses that are not covered by excess spread. Typically, transactions have a target overcollateralization amount that is a specified percentage of the pool balance. Therefore, if the asset pool does not perform as expected or assets are liquidated due to an event of default, additional assets will be available to meet the SPV's obligations. Once the target is reached, any unused excess spread in a payment period will be released.

Section 5 - Cash Flow Analysis

Morningstar performs cash flow analysis to test the transaction structure and sufficiency of credit support. We apply various stresses specific to each rating level to determine whether the asset pool generates sufficient cash flow to make timely interest and principal payment on the rated securities by the transaction's legal final maturity date. Additionally, Morningstar evaluates potential leakage of excess spread from the structure that may reduce the likelihood of meeting investor payments when due. Generally, the stress assumptions we make pertain to the magnitude of losses, front-loading and back-loading the timing of defaults and losses, recoveries on losses, timing of recoveries, prepayments, interest rate stresses and factors specific to each asset class.

In transactions where Morningstar seeks to derive an expected loss rate for an operating company's portfolio, as is the case in rental car, whole business and film securitizations for example, or in certain lease transactions, we may use a Monte Carlo simulation modeling approach to derive an expected loss by randomly generating future performance based on a broad data set of historical performance. The cash flows are then modeled to a confidence level consistent with the desired rating.

In modeling the cash flows in a container lease ABS transaction, for example, several thousand scenarios are run to determine whether the sum of lease payments, container sale proceeds, and available credit support is sufficient to make payments to investors when due. The cash flow simulations reflect the payment allocation mechanisms in the transaction, including early amortization and other performance triggers. Among the factors that are simulated in each of the scenarios based on an assumed probability distribution are the utilization rate, the lessee default rate, lease rates, the residual values of the containers, storage costs for off-lease containers and operating expenses (repair, maintenance, relocation) and the probability of a manager default, which is based on the manager's credit profile. The distribution is derived from issuer-specific historical data. To determine the transaction rating, Morningstar also may consider certain qualitative factors, including the type of containers in the asset pool, the expected change in pool characteristics over time, and the capabilities of the manager and the back-up servicer.

Section 6 - Originator and Servicer Quality

For issuers whose transactions Morningstar is rating for the first time, Morningstar reviews the originator/servicer of the securitized assets to assess loan origination, underwriting and servicing capabilities. ABS ratings analysts, with input from members of Morningstar's operational risk assessment group, as needed, will evaluate the capabilities of originators and servicers. This review is integral to the ratings process in that it can uncover risks embedded in the transaction due to origination and servicing practices, as well as the direction of portfolio performance going forward. If a third-party due-diligence firm has conducted an operational audit of a given originator or servicer, Morningstar may review the third-party firm's findings.

For certain transactions, Morningstar's operational risk assessment group may conduct a formal assessment and provide a ranking as part of the overall ratings process. For a detailed description of Morningstar's Operational Risk Assessment methodology, please see "Operational Risk Assessment for Residential Servicers, Consumer Finance Servicers, and Vendors – Methodology and Process" dated July 2011, under the "Analysis and Considerations" link on its website, https://ratingagency.morningstar.com.

The starting point of a Morningstar operational review is to request information from the originator or servicer that includes, as applicable, company history, management biographies, financial statements, origination policies, underwriting criteria, servicing infrastructure and collections policies, and historical performance data, including managed portfolio, static pool and recovery data.

After the requested information is received, Morningstar will conduct meetings with management to gain a better understanding of the issuer's business model, strategic plan, financial condition and operational capabilities. Morningstar's review of origination operations is aimed at understanding the issuer's lending channels, programs, marketing practices, underwriting policies, funding and documentation processes, and the quality of origination controls. Morningstar's review of servicing operations will evaluate the quality of loan administration and default management processes, the technology that supports collections, compliance with guidelines and procedures and, operational stability.

Section 7 - Counterparty Credit Risk

Counterparty credit risk is an important consideration in rating ABS transactions. Typically, ABS transactions are dependent on the credit quality of counterparties, including providers of bank accounts, derivatives and financial guarantees.

With respect to derivatives, interest-rate swaps and caps are often embedded in ABS transactions to tailor the cash flows of the underlying asset pool to better match those of the securities that are issued. Mismatches may occur in situations when the underlying loans are floating rate and the securities are fixed rate, and vice versa. To mitigate the risk that with interest-rate fluctuations, the interest generated from the asset pool is less than the required interest payments on the securities, the SPV will enter into an interest-rate swap and/or cap agreement and then use the payments it receives under the swap to pay the interest on the securities.

In analyzing interest-rate swaps/caps, Morningstar may model cash inflows and outflows in the waterfall and their impact on the desired target rating and will review the swap/cap documentation, such as International Swaps and Derivatives Association schedules and confirmations, including certifications and legal opinions to determine that the hedges are properly authorized and executed.

Morningstar will determine the suitability of bank account, hedge and financial guarantee counterparties on a case-by-case basis. To the extent available, Morningstar will consider the Morningstar, Inc. credit rating of the counterparty in its assessment. We also may consider the credit ratings of other rating agencies in assessing the credit quality of counterparties.

In Morningstar's view, provisions requiring the original counterparty to a transaction to replace itself or appoint a guarantor at its own cost by a specific date should the counterparty's rating be downgraded below a certain level are an effective way to mitigate counterparty credit risk. In addition, provisions that require the counterparty to post collateral after a trigger event are effective risk mitigants in that they secure counterparty obligations or replacement costs in advance.

Section 8 - Monitoring of Performance

Ongoing monitoring of the performance of outstanding transactions is an essential part of Morningstar's ratings process. Once an ABS transaction is rated by Morningstar, the letter ratings and rating outlooks will be reviewed and updated on a periodic basis. Morningstar expects to receive servicer reports on a monthly basis, which provide updated information concerning collateral performance, available credit support and the paydown of the securities. In monitoring ABS transactions, Morningstar analyzes transaction performance in accordance with the methodology articulated in this report as well as any changes to the methodology made during the life of the securitization.

In general, Morningstar's surveillance involves quantitative and qualitative analysis that includes reviewing transaction performance relative to initial expectations, the likelihood that performance triggers will be breached, and information obtained from any ongoing operational reviews. In addition, Morningstar will remain informed of and evaluate industry developments and emerging trends that may impact a rated transaction's performance. Morningstar's monitoring is asset-specific and tailored to the type of transactions we rate. For example, in dealer floorplan transactions where typically there is no or minimal loss in the life of the transaction, Morningstar reviews the monthly charge-off rate but focuses on more relevant performance metrics, including the monthly payment rate and level of excess spread in the deal. In addition, Morningstar closely monitors the financial condition and performance of the manufacturer, dealers and servicer given their viability is critical to transaction performance as well as trends in the used car market and auto industry in general.

From time to time, Morningstar's Criteria Committee will review ABS securitization methodology and models. Any changes to the methodology or models will consistently be applied to both initial and surveillance ratings for ABS securities, as applicable. Whether changes to the methodology or models are applied retroactively will be determined by Morningstar's Criteria Committee and will be made public along with the notice of the update.