



# General Methodology for Rating Asset Backed and Structured Finance Obligations (Non-NRSRO)

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#### SEC Requirements

A general description of the procedures and methodologies used to determine credit ratings. The description must be sufficiently detailed to provide users of credit ratings with an understanding of the processes employed in determining credit ratings, including, as applicable, descriptions of: policies for determining whether to initiate a credit rating; a description of the public and non-public sources of information used in determining credit ratings, including information and analysis provided by third-party vendors; whether and, if so, how information about verification performed on assets underlying or referenced by a security or money market instrument issued by an asset pool or as part of any asset-backed or mortgage-backed securities transaction is relied on in determining credit ratings; the quantitative and qualitative models and metrics used to determine credit ratings, including whether and, if so, how assessments of the quality of originators of assets underlying or referenced by a security or money market instrument issued by an asset pool or as part of any asset-backed or mortgage-backed securities transaction factor into the determination of credit ratings; the methodologies by which credit ratings of other credit rating agencies are treated to determine credit ratings for securities or money market instruments issued by an asset pool or as part of any asset-backed or mortgaged-backed securities transaction; the procedures for interacting with the management of a rated obligor or issuer of rated securities or money market instruments; the structure and voting process of committees that review or approve credit ratings; procedures for informing rated obligors or issuers of rated securities or money market instruments about credit rating decisions and for appeals of final or pending credit rating decisions; procedures for monitoring, reviewing, and updating credit ratings, including how frequently credit ratings are reviewed, whether different models or criteria are used for ratings surveillance than for determining initial ratings, whether changes made to models and criteria for determining initial ratings are applied retroactively to existing ratings, and whether changes made to models and criteria for performing ratings surveillance are incorporated into the models and criteria for determining initial ratings; and procedures to withdraw, or suspend the maintenance of, a credit rating. Market participants are provided the opportunity to comment on the methodologies through the EJR’s website (publicly available) for EJR’s consideration.

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## Introduction and Overview

Egan-Jones Ratings Co. (EJR) is publishing this general methodology for Structured Finance (SF) and Asset-Backed Securities (ABS) (collectively Structured Finance or SF) to provide an explanation of the fundamental components of the rating process. There are many different sectors in the SF market, including consumer assets, commercial assets, intellectual property and a variety of non-traditional collateral types. EJR's rating approach focuses upon the characteristics and key credit considerations specific to each sector. This methodology provides a general overview of the different categories of SF, followed by a high-level discussion of broad elements of the rating approach typically applied to each category. The methodology also includes an overview of EJR's analysis of legal structures and the surveillance process. EJR will publish detailed methodologies for active sectors and will generally describe EJR's analytical approach for less active sectors in pre-sale or transaction reports.

The credit analysis on structured finance products mainly takes several factors into consideration: collateral assets performance risk, liability structure, and depending on the type of SF transaction, portfolio management risk. The Portfolio Management Risk is related to the portfolio manager's skill and is typically qualitative. The Collateral Assets Performance Risk describes the uncertainty from the asset side, including but not limited to the asset values, asset repurchases, prepayment, default and recovery. The risk is distributed to each tranche through the cash flow waterfall structure. The distributed risk then determines the implied rating for the specific tranche.

In assessing the credit quality of structured finance products, EJR takes various factors into consideration, including but not limited to the value and performance of the underlying assets, the level of subordination, and the overall trends impacting the expected loss. The application of EJR's analytical approach to each type of sector is described in the following three sections. Each section will explain EJR's general approach toward a given category, as well as highlight aspects of the analysis that carry more emphasis for certain sectors. An additional section provides a general overview of the key components of EJR's structural and legal analysis, including the attributes of special-purposed entities, "true sales" of and perfected security interests in the assets, and protections against potential consolidation of an SPE with the seller or depositor. A final section discusses EJR's approach to surveillance. In certain cases, a major strength can compensate for a weakness and, conversely, there are cases where one weakness is so critical that it overrides the fact that the obligor may be strong in most other areas.

## Key Steps in Structured Finance Rating Process

- Asset analysis
- Financial structure and cash flow analysis.
- In limited cases (rarely for subscription ratings), originator, sponsor, and servicer reviews.
- In limited cases (rarely for subscription ratings), counterparty analysis.
- In limited cases (rarely for subscription ratings), transaction documentation and legal analysis.
- Disclosures (rarely for subscription ratings), representations and warranties reviews.
- Final ratings
- Surveillance

**Asset Analysis:** The credit analysis model summarizes information on the performance of the asset pool including some of the following: an assessment of the value, 30, 60 and 90+ day delinquencies, bankruptcies, foreclosures, real estate owned, assets correlation, average life, payment history, recovery and prepayments. Additional considerations might include property locations, concentrations, prior credit characteristics, risk factors, borrower data, and trends. An acceleration in the delinquencies and losses for the pool would generally be considered a negative event. The source of the data used by EJR is often from loan service trustee reports compiled and maintained on data vendors, clients and other reliable sources. Note, the data is assumed to be accurate and EJR makes the best effort to control the data quality, but EJR does not confirm its accuracy.

**Financial Structure and Cash Flow Analysis:** Analyzing the financial structure of the transaction involves analyzing the payment priority waterfall and credit enhancement. EJR uses cash flow models to determine the adequacy of the structure using the default, recovery and/or loss expectations. Where applicable, prepayment, interest rate, default timing, and stress scenario assumptions as described in published asset-specific and global criteria are applied as inputs to the model. Via its model, EJR aims to determine the level of credit support for various tranches. In some cases, such as CMBS, EJR simply uses adjusted asset values to compare to the outstanding obligations for each tranche. In other cases such as RMBS, EJR might subtract from the calculated credit support the various delinquencies (30, 60 and 90+ day delinquencies when available), bankruptcies, foreclosures, and real estate owned in order to obtain EJR "adjusted current credit support" or "current credit support." EJR "adjusted current credit support" is then compared to an EJR credit matrix which calibrates minimum support levels by rating levels (the higher the level, the higher the implied rating) in order to obtain an implied credit rating. The Ratings Group analyzes the implied rating in conjunction with its assessment of any difference between historical performance and expected future performance, and then assigns a rating.

**Note, for subscription ratings, that is ratings paid for by institutional investors rather than issuers, EJR generally does not have access to non-public data sources and therefore performs analyses based primarily and most times solely on publicly available information. Generally, this information is based on trustee reports and excludes the in-depth information available from issuers and their agents.**

**Limits on Originator, Sponsor, and Servicer Reviews:** While EJR's analysis of the credit quality of the underlying collateral in SF transactions is the key part of the rating process, the risk caused by operational weaknesses is often not apparent in the collateral characteristics but manifests itself in pool performance. While conducting originator and servicer reviews can provide a qualitative indication of the risk in SF transactions attributable to an originator level of risk management and disclosure and the quality of the servicers' operations, EJR normally does **NOT** perform such analysis. Information on the originator and servicer is often not publicly available. When available, EJR may use information in its analysis. The factors which would typically be included in a thorough servicer analysis include corporate stability, financial condition, management and staff experience, technological capabilities, policies and procedures, origination capabilities and performance, controls, and historical servicing performance.

**Limits on Counterparty Analysis:** Counterparty analysis is critical when the counter party is providing credit support to the security, a prime example being that of a monoline insurance firm's support. EJR can usually obtain information on publicly traded financial firms providing support. However, obtaining relevant credit information on other counterparties is often difficult and is normally **NOT** conducted.

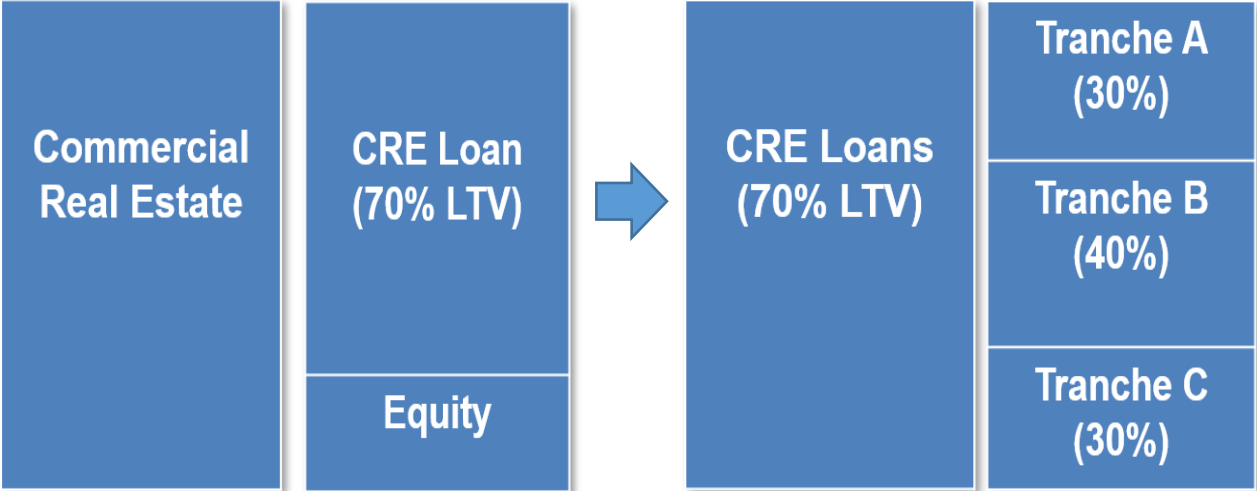
**Limits on Transaction Document and Legal Analysis Review:** EJR typically does **NOT** review the transaction documents addressing the characteristics of the underlying assets pool to confirm structure, duties of the transaction parties, servicing and reporting provisions or the representations and warranties, as would be provided by the transaction parties. The publicly available representations and warranties provide assurances that certain facts about the collateral and transaction parties can be relied upon.

**Assigning the Ratings:** After an analysis is completed, the rating is assigned and listed in the rating analysis report (RAR). Rating file documents are retained by EJR.

**Surveillance:** Surveillance of existing transactions follows the same approach and adheres to the same regulatory requirements as those for assigning new ratings. Transactions are monitored periodically (at least annually) with an updated rating action (affirmed, upgraded, downgraded, or withdrawn).

### Overview of the Typical Transaction

SF transactions are typically comprised of a pool of assets which are placed in a special purpose entity (to minimize the bankruptcy risk) and securities (i.e., tranches) are issued backed by the cashflows generated by the pool assets. Normally, cash is allocated to the various tranches in a waterfall fashion such that the senior tranches are serviced first, and the cash is allocated to the subordinated tranches in a waterfall like manner. Below is a simplified example whereby a commercial real estate asset is funded via a loan with a 70% loan to value (“LTV”). The described loan and other loans are placed in a pool whereby the assumed weighted average LTV is 70%, and the pool is funded via three tranches (A, B, and C).



*Example of a Structured Finance Transaction Structure*

To assess credit quality of the tranches, it is helpful to consider the support provided by the subordinated tranches. As can be seen in the below diagram, the amount of each tranche is listed under “Amount” and the Collateral Enhancement is the sum of the amounts for the subordinated tranches. The Pool LTV is derived by subtracting the Collateral Enhancement from 100% and the last column, the “Look-Through LTV” is derived by multiplying the Pool LTV by the weighted average LTV. The following example results in a “Look-Through LTV” of 70%.

	Amount (1)	Coll. Enhance. (2)	Pool LTV (3=100%-2)	"Look Through" LTV (4=3x70%)
<b>Tranche A</b>	<b>30%</b>	<b>70%</b>	<b>30%</b>	<b>21%</b>
<b>Tranche B</b>	<b>40%</b>	<b>30%</b>	<b>70%</b>	<b>49%</b>
<b>Tranche C</b>	<b>30%</b>	<b>-</b>	<b>100%</b>	<b>70%</b>

As illustrated above, the senior tranche derives additional credit support from the subordinated tranches. However, this simplistic view ignores a few relevant features. First, to obtain a true picture of credit loss, a credit assessment is needed for each asset and for each, derive an assessment of the loss or derive a similar measure. For example, if there were two 10 year \$100M loans in a portfolio whereby one had a LTV of 100% and the other 50%, the 10 year estimated loss might be 55% for the first loan and 0 for the second, resulting in a total estimated loss of \$55M. However, if we were to simply take the weighted average LTV of the two loans, it would be 75%, the 10-year estimated loss would be 7.4% and the total loss would be \$14.8M. Hence, taking the weighted average LTV and estimating the loss based on the aggregate runs the risk of understating losses.

	Loan Amt. (1)	LTV (2)	10 yr. Est. Loss (3)	Total Loss 4=1x3
<b>Property A</b>	<b>\$100M</b>	<b>100%</b>	<b>55%</b>	<b>\$55M</b>
<b>Property B</b>	<b>\$100M</b>	<b>50%</b>	<b>0%</b>	<b>0</b>
<b>Totals</b>	<b>\$200M</b>			<b>\$55M</b>
<b>Composite</b>	<b>\$200M</b>	<b>75%</b>	<b>7.4%</b>	<b>\$14.8M</b>

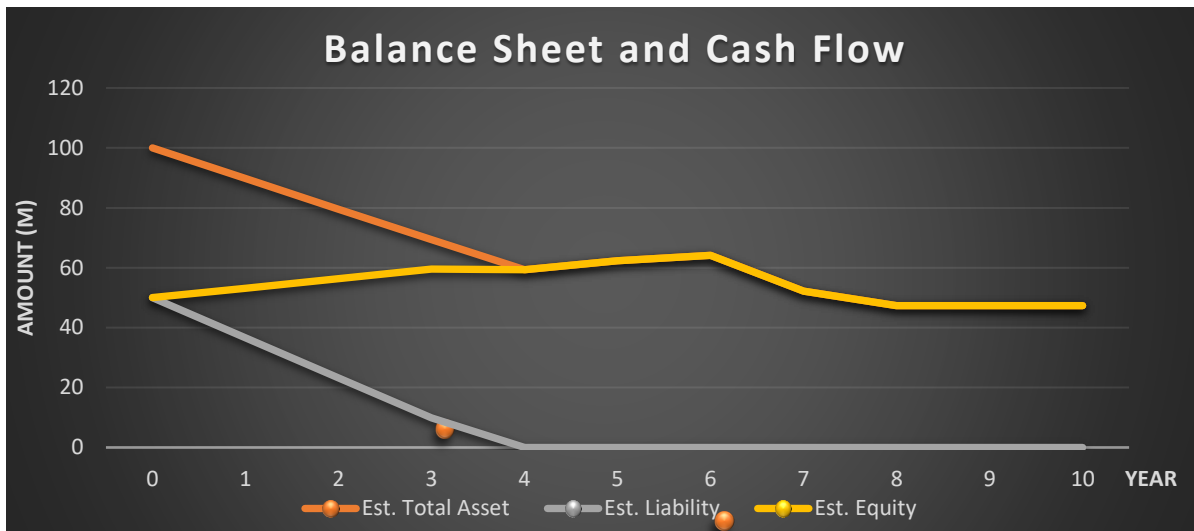
Another item should be considered in the evaluation of the portfolio is the cashflows and timing of the cashflows. While the estimated loss mentioned above is helpful, the estimated loss is over a 10-year period and during that period, some cash inflows can be expected from payments on the loans. Furthermore, part of the cashflow is in the form of principal amortization on the loans. Hence, a robust estimate of the cashflows from the assets is needed along with a model to estimate the proper waterfall of the liabilities. Below is a simple table and a graph demonstrating the cashflows for the assets and liabilities (assuming one fixed income tranche and one equity tranche) and the resulting buildup of equity.



	Asset Side						
Year	Interest Payment	Principal Payment	Default Recovery	Management Fee	Est. Cash Inflow	Remaining Principal	DSCR
0	-	-	-	-	-	100.00	-
1	5.98	9.97	0.22	0.01	15.67	89.75	2.16
2	5.37	9.94	0.20	0.01	15.01	79.56	2.26
3	4.76	9.92	0.18	0.01	14.35	69.42	2.37
4	4.15	9.89	0.15	0.01	13.69	59.34	2.51
5	3.55	9.86	0.13	0.00	13.04	49.31	-
6	2.95	9.84	0.11	0.00	12.39	38.69	-
7	2.32	9.81	0.09	0.00	11.71	15.05	-
8	0.90	9.78	0.03	0.00	10.21	-	-

	Liability Side				Cash Flow	Balance Sheet		
Year	Interest Payment	Req Prin Payment	Add'l Prin Payment	Remain Principal	Net Cash Flow	Total Assets	Total Liabilities	Total Equity
0	-	-	-	50.00	-	100.00	50.00	50.00
1	2.25	5.00	8.42	36.58	8.42	89.75	36.58	53.17
2	1.65	5.00	8.36	23.22	8.36	79.56	23.22	56.34
3	1.04	5.00	8.30	9.92	8.30	69.42	9.92	59.50
4	0.45	5.00	4.92	-	8.25	59.34	-	59.34
5	-	-	-	-	13.04	62.35	-	62.35
6	-	-	-	-	12.39	64.12	-	64.12
7	-	-	-	-	11.71	52.19	-	52.19
8	-	-	-	-	10.21	47.35	-	47.35

Note, to assist in deriving asset and liability cashflow, we rely on industry-accepted sources.



In our example, the pool debt is amortized after year 4, and thereafter, the equity is equal to the total assets. Although the above example is simplistic, it illustrates some key considerations in the rating process.

## Types of Transactions

SF transactions typically involve a sponsor that has originated or acquired assets that are sold into a bankruptcy remote, special purpose vehicle (SPV) that sells securities backed by the assets to the market. Most SF sectors rely on the quality of the sponsor's operations relating to generation and servicing of the securitized assets. A key factor in differentiating among SF sectors is the degree of ongoing exposure a transaction has to the sponsor in terms of servicing and other operations that are necessary to generate cash flow from the assets to pay interest and principal on the SF. EJR defines this exposure across a range that extends from the servicing of financial receivables (such as auto loans), to re-leasing and other activities necessary in operating assets (such as shipping containers and aircraft), to ultimately the cash flow generating operations of the overall business (such as whole business securitizations). EJR places SF sectors into three broad categories, based largely on the degree of sponsor exposure.

The categories described above provide a general description of EJR's rating methodology for different types of SF. EJR's analytical process for individual securities attempts to address the credit risks of a particular sector and transaction, and may combine elements shared by multiple categories described above or additional risks not traditionally found in SF. The approach relating to each category is contained in this report. Common themes include:

- Reviewing the overall business model and operational strength of the sponsor/seller/servicer, as well as ascertaining motivations for the transaction and its performance.
- Analyzing the characteristics of the asset pool including a historical data on asset performance or cash flows.
- Stress testing cash flows against the transaction structure at specific rating levels.

- Assessing the transaction’s structural provisions and documentation, as well as the protections provided by the legal structure against securitized assets being consolidated with assets of the sponsor in a bankruptcy or insolvency.

## I. Financial Assets

Assets include transactions that fund a pool of financial obligations, including auto loans, credit cards, student loans, commercial loans and similar consumer and commercial collateral types. In these sectors, the assets are normally granular, meaning that there generally are not significant obligor concentrations in the pool. The assets are financial obligations where obligor payments typically provide for the full payment of interest and principal on the rated securities. The likelihood of payment on the rated ABS is sometimes enhanced by reserved funds or other liquidity mechanisms. Assets generally include individual loans or other obligations of consumers or businesses that are originated or acquired by a finance company or bank and then segregated into pools to be securitized. The creditworthiness of these obligors is dependent on the origination and underwriting policies of the originator. The originator of the contracts is frequently the servicer, whose duties typically include collecting payments, pursuing delinquent accounts and recoveries on defaulted receivables, remitting funds to the trustee and transaction reporting.

The structure of these transactions may vary depending on the asset type and the purpose of the transaction. For example, typically auto loan transactions have an amortizing structure with a static pool of assets sold to an SPV upon the closing of the transaction. However, an auto loan transaction may also include a prefunding account or may be structured as a revolving facility used to warehouse loans prior to structuring them in a term deal. Some transaction types are normally structured as revolving due to the nature of the receivables being funded, such as credit cards. Such transactions may be structured as a discrete trust but are generally funded in a master trust vehicle. Despite these differences, SF transactions incorporate some basic structural elements including the “true sale” of the assets into a bankruptcy remote SPV to mitigate the impact to the transaction in the event of the seller/servicer’s bankruptcy or insolvency.

### Collateral

EJR might analyze the characteristics of the collateral in the pool to understand the credit profile of the underlying obligors and loans. EJRs generally compare the characteristics of the pool to ascertain credit quality with an aim to project expected loss levels.

EJRs might review characteristics such as:

- Obligor credit scores - internal credit scores and/or FICO scores, internal or external ratings
- Product or loan type
- Contract original and remaining term / amortization schedule
- Interest rates / yield
- Leverage ratios, as applicable, such as debt-to-income (DTI), payment-to-income (PTI), debt service coverage, down payment, and loan-to-value (LTV) ratios

- Geographic distribution
- Specific collateral characteristics relative to that asset type, for example:
  - Auto – vehicle type and age
  - Student loans – school type and payment status
  - Equipment lease – equipment type

For revolving asset classes such as credit cards, EJR might review the characteristics of the receivables in the trust as well as the eligibility criteria that dictate the characteristics of future receivables eligible to be contributed to the trust.

For many asset classes, EJR might assess credit enhancement levels by determining a base case for losses, and then stressing losses by a multiple of the base case as appropriate to derive other rating levels. EJR might establish stress case multiples at each rating level and applies these multiples to the base case. EJR may consider industry trends and the impact of the sector's credit cycle in determining a stress multiple. The timeframe for the analysis will depend on the specific asset class and the tenor of the assets being securitized. EJR might also consider the potential influence of economic and market conditions on the asset performance observed in prior periods.

The specific data analyzed will depend on the type of asset being securitized. For example, static pool data is often segmented by loan type or internal credit score or FICO score to develop a base case loss expectation for each segment of the collateral pool. For transactions with revolving pools such as credit cards, there might be an analysis of the performance data including performance volatility for the portfolio and changes in obligor quality and loan terms over time. The key variables often depend on asset type. For example, in credit cards, this includes yield, payment rates, charge-offs and purchase rates.

## Cash Flow Analysis, Transaction Structure and Credit Enhancement

EJR generally uses cash flow analysis to test the transaction structure and credit enhancement. The analysis uses stress loss assumptions specific to each rating level as discussed above to determine whether the assets generate enough cash flows to make timely interest and full principal payments on the rated securities prior to the legal maturity. In addition to losses, stress assumptions may include some combination of loss timing, recoveries on losses, timing of recoveries, prepayments, interest rate risk or other factors specific to each asset class.

## II. Operating Assets

Transactions in this category are typically backed by pools of short- term loans or leases on long-lived assets with payment terms that generally do not fully pay the SF. In operating asset SF, the underlying assets are normally sold to the SPV along with the current leases or loans and the rights to all future cash flow generated from the assets. Sectors in this category have greater operational risks linked to the servicer and have more exposure to the rental and resale markets for the underlying assets. Common examples in this category include shipping containers, aircraft, rail, auto rental fleets, and other sectors

where transactions are exposed to rental, re-leasing, residual value fluctuations and remarketing risks associated with the assets. In addition, the assets can require ongoing maintenance and upkeep to prepare them for remarketing. The full payment of interest and principal is reliant on servicer or manager performance.

Operating asset securitizations are reliant upon current and future cash flows derived from the ongoing management of a pool of underlying assets over their useful lives. Typically, cash flows are generated by the assets under lease or other contractual arrangement, and ultimately from the sale of the assets. There is a wide array of operating asset classes. However, most SF operating asset transactions involve the transportation leasing sectors, including containers, railcars, and aircraft. The securitization of rental cars and auto and truck fleet leases may also be considered operating asset transactions.

Most operating asset transactions tend to fall into two broad categories. The first includes sectors such as containers, railcars, and aircraft. In these sectors, cash flow is generated largely by existing and future lease payments as managers are responsible for re-leasing assets one or more times over their useful lives and ultimately for selling the assets for residual value. The second category includes rental car auto and truck fleet leasing transactions. In rental car transactions, monthly cash flow is typically provided by a sole lease payment made by the rental car company to the SPV. The lease payment is sized to cover interest, fleet depreciation and other costs. Principal payments are based upon the sale of the cars to manufacturers under repurchase agreements or in the secondary market. By contrast, fleet leasing transactions typically involve lease payments from a pool of obligors followed by a sale of the vehicles into the secondary market to monetize the residual value. The assets are comprised of both closed-end leases, where the SPV bears the residual risk upon lease termination, and open-ended leases, where the lessee bears that risk.

A common element among operating asset securitizations is the close tie between the performance of the underlying assets and the sponsor's overall operating performance. This is especially true when the securitized assets represent a significant percentage of a company's total assets, often through master trust structures common in operating asset transactions. The sponsor will typically buy and sell assets into and out of the trust, subject to pool eligibility criteria. This symbiotic relationship — the importance of the securitized asset pool to the company and the transaction's exposure to the sponsor's operating performance — typically requires additional emphasis on assessing the industry and company.

Operating asset securitizations have the same structural elements as other securitizations, including the true sale of the assets to an SPV, payment priorities and early amortization events. The pivotal role the manager plays in releasing the underlying assets over their useful lives and managing market risk associated with the ultimate sale of the assets is what distinguishes operating asset transactions from securitizations of pure financial assets. Typically for large transportation assets such as containers or railcar, the securitized contractual and future cash flows are related to assets that have long-term useful lives, often ranging from 15 to 30+ years. The length of the initial underlying leases is far shorter, typically three to seven years in duration. Repayment of the securitized notes is dependent upon the ability of the manager to continue to re-lease the assets until they are sold toward the end of their useful lives.

In most operating asset transactions, the sponsoring company acts as manager for the transaction. As manager, the company is responsible for obtaining renewals of leases to ensure that the securitized assets are utilized and generating revenue. Since much of the transaction is dependent upon renewals and the creation of future leases, the strength of the manager's industry position, historical results, and credit and underwriting processes are important factors.

The manager is also responsible for making sure that unutilized assets are being properly maintained, stored, insured and transported, so that they are ready to be placed with a new user. These costs, usually called direct operating expenses, are paid out of revenues prior to the payment of interest or principal to noteholders. Certain asset classes, such as aircraft, may require specific cash reserves allocated for the payment of certain expenses, due to the ongoing need to perform essential and costly maintenance to keep the aircraft operational.

Most of the companies that issue operating asset securitizations operate in cyclical industries, including containers, railcar, aircraft, and rental cars. In a number of these sectors, EJR will generally test the resiliency of the credit metrics or cash flows.

In EJR's view, for certain operating assets, such as containers, securitizations do not typically warrant ratings in the highest rating categories partly due to the reliance on a much lower rated (often non-investment grade) or unrated manager to re-market the assets to generate cash flow. Moreover, it is common for transactions to be dependent upon single, cyclical industries, such as shipping and aviation, which adds additional risk. Furthermore, in situations where a significant portion of corporate assets support the SF, combined with the ability of the manager to buy, sell and re-market assets sold to the SPV, there may be more stress on the bankruptcy-remoteness of the entities, should the manager file for bankruptcy protection. Despite these limitations, consideration may be given to special circumstances or structures that may support the assignment of high investment grade ratings. With operating assets such as rental cars and fleet leasing, ratings in the highest rating categories are possible depending on the transaction structure and enhancement levels.

## Collateral Analysis

EJR will typically review the composition of the assets to be securitized, including their type, quality, age and other characteristics. Historical performance data provided by asset type will be an important factor in determining utilization volatility, lease renewal experience, pricing trends, downtime, default history and the level of direct operating expenses incurred. In addition, EJR might review return provisions and the obligor's payment responsibilities.

## Cash Flow Analysis, Transaction Structure and Credit Enhancement

EJR typically develops a base case cash flow with the aim of reflecting normalized operations as well as the characteristics of the securitized fleet. After establishing the base case, EJR might develop stress scenarios and applied against the base case which might include:

- Asset utilization
- Lease or contract rates
- Renewal rates
- Downtime
- Lessee default rates
- Asset sales
- Direct operating costs
- Interest rates

The ultimate objective of the analysis is to determine whether cash flows will be enough to meet liability obligations by the legal final maturity date.

In addition, EJR might review credit enhancements such as subordination, overcollateralization, excess spread, reserve accounts or letters of credit. In operating asset SF, the transaction is typically a master trust structure. Operating asset transactions often contain trigger events which, if breached and not cured, result in an early amortization of debt. The early amortization events can include financial tests that measure the performance of the transaction, including an asset base deficiency and coverage ratios, as well as an ongoing event of default or manager default. The management agreement typically also contains default and replacement provisions allowing for a replacement of the manager. Some transactions may designate either a back-up manager or a transition agent who would be engaged to find a suitable replacement.

Transactions that involve a large part of a company or an entire business, or pose significant operating risk, may be exposed to heightened risk to the separation of the assets from the sponsor contemplated by the securitization.

### III. Corporate Assets: SF with Business Risk

These transactions are SF backed by cash flows that have a significant degree of business risk beyond the re-leasing, residual value and related risks contemplated in Category 2. The cash flow for some of these transactions is not based directly on a pool of financial receivables but on cash flows to be generated in the future based on rentals, sales, service contracts, franchise fees, transaction payment flows or other sources. Examples of Category 3 transactions include whole business transactions involving restaurants or other industries, film and certain other types of intellectual property deals, emerging market future flow transactions involving commodity exports or various forms of payment rights, and a variety of other non-traditional sectors. These types of transactions are often exposed to many of the fundamental business risks to cash flow that the company faces and are typically analyzed in the context of the overall business risk specific to that industry and company.

Several sectors have developed which do not involve financial obligations or traditional operating assets from a diverse obligor pool, but instead are secured by assets or cash flow from part or all of an issuer's

business or operations. Examples can include whole business transactions involving quick-serve and casual dining restaurants and other industries, securitizations of film rights and certain other types of intellectual property, future flow transactions involving commodity exports or various forms of payment rights, and a variety of other non-traditional sectors. These sectors are very distinct from one another, and EJR's analytical approach will generally address factors that are specific to a sector and transaction. One common theme across sectors is the importance of the underlying business that generates the cash flow: industry drivers, the company's competitive position, sustainability of cash flow and the potential impact of cyclical and economic stress. Many of the issuers are lower investment grade, non-investment grade or unrated companies. Given the significant exposure to these issuers in many sectors, SF ratings will often be in the lower investment grade categories.

In transactions with significant business risks, a key distinction of EJR's approach often relates to different weightings of analytical factors, given the strong relationship between the business risk and the SF, and the specific aspects of individual sectors, issuers, and transactions.

### Collateral Analysis/ Historical Performance/ Cash Flow Analysis

One of the key risks of an SF transaction involves the degree to which the ongoing cash flows and their source are likely to have sustainability and stability over the term of the transaction. Hence, EJR might review historical information for the overall business or product line to gain a broad perspective on the performance drivers and trends including the volatility of operating earnings and cash flows, industry changes or other factors. This analysis typically assists in assessing the stability of the asset cashflows.

In certain asset types, such as movie and music rights, pharmaceutical royalties, or similar long-term revenue streams, the cash flow profile may undergo a decline over time. Some specific asset types, such as film rights, also involve financing new assets as opposed to existing assets with performance history. Examining and stressing projections, as well as prior performance, can therefore be a significant part of the analysis. Patent rights and expirations for assets such as pharmaceutical royalties and other applicable sectors can also be key considerations.

The repayment of some transaction types may depend on the market value of the asset pool, and the ability to monetize that value over a defined time period.

Transactions that involve a large part of a company or an entire business, or pose significant business risk, may be exposed to heightened risk to the separation of the assets from the sponsor contemplated by the securitization.

## Overview of General Legal Considerations

### Key Legal Considerations

EJR typically does **NOT** review the transaction documentation to assess whether the special purpose entity (SPE) that owns the assets underlying the transaction is structured in a manner that helps reduce the risk



that it will be the subject of a voluntary or involuntary bankruptcy. The SPE's assets must be sufficiently isolated from creditors of other transaction parties if any such transaction party becomes bankrupt or insolvent. Such factors are indicative of the SPE's separate organizational existence from a seller and that would be relevant to a bankruptcy court's determination of whether to consolidate the SPE's assets and liabilities with those of a seller. As used in this publication, the term "seller" may refer to an originator, aggregator or depositor as applicable. Transaction documents typically address other bankruptcy risks that are associated with any seller of the assets involved in the chain of sale to the SPE, as well as the terms of such sale. Transaction documents and opinions normally identify whether any additional legal risks are present in the subject transaction.

## SPE Related Considerations

An SPE may take on various forms, including that of a statutory or common law trust, a master or stand-alone trust or a limited liability partnership or limited liability company. The form of the SPE is typically selected by the transaction sponsor.

SPEs are normally organized in a manner that enables it to perform under the transaction documents, whether there are limitations on the SPE's ability to enter into certain activities and agreements outside of the transaction, and whether there are factors indicative of the SPE's independence and separate organizational existence from a seller and the isolation of the SPE's assets from the assets of a seller.

Considerations include whether:

- The SPE is duly organized, validly exists and is in good standing under the laws of the jurisdiction in which it was created.
- The SPE's organizational documents, or the SPE covenants in the transaction documents, contain appropriate restrictions preventing the incurrence of debt outside the transaction.
- The transaction is contemplated in the SPE's organizational documents.
- The SPE's organizational documents specify that it cannot, or the SPE covenants that it will not, enter into any activities except in connection with the transaction.
- All agreements that the SPE enters into include customary non-petition provisions, which typically restrict the ability of any party, including investors, from commencing bankruptcy proceedings against the SPE until at least one year and one day after the discharge of the principal transaction document that governs the issuance of the securities;
- All agreements that the SPE enters into specify that the SPE's obligations will only be paid if the SPE has funds or assets available to make such payments and that there will be no recourse to the SPE if the SPE, at any time, does not have sufficient funds or assets to make all or part of any such payments;
- The SPE will not be subject to tax if it enters into the transaction.
- The SPE is prohibited, either by its organizational documents or by making a negative covenant in a transaction document, from merging or consolidating with a non-SPE, reorganizing or dissolving and, with certain exceptions, liquidating or selling its assets while its rated securities are outstanding;
- The SPE maintains a separate existence from other transaction parties, as evidenced by, among other factors:

- Maintaining separate corporate records, books of account and financial statements from those of any other entity.
- Holding its funds and assets in segregated accounts that are not commingled with those of any other entity.
- Paying its own operating expenses and liabilities out of its own funds.
- Conducting business solely in its own name through duly authorized officers or agents; and
- Having its own office space, stationary and other business forms; and
- The SPE has an independent identity from the other transaction parties and has at least one independent director or member, as applicable, who is not employed or affiliated with any other transaction party and who satisfies appropriate standards for independence, and whose consent is required for a voluntary bankruptcy filing.

## Bankruptcy Risks

True sale - EJR generally does **NOT** review the transaction documentation to assess whether the assets securing the SPE's payment obligations or supporting its certificates have been validly transferred to the SPE so that the assets are likely to be isolated from the creditors of a seller in the event the seller becomes bankrupt or insolvent or is placed into receivership or conservatorship. The transfer between a seller and the SPE, and each intervening transfer to and from another seller, generally must qualify as a "true sale" rather than as a secured lending in order to avoid the application of the automatic stay provisions of the Section 362(a) of Title 11 of the United States Code (the "Bankruptcy Code"). Whether a transfer constitutes a "true sale" depends on several factors, including whether:

- The assets have been exchanged for value.
- The seller has valid reasons for selling the assets rather than entering into a secured lending arrangement and none of the parties have acted with intent to hinder, defraud or delay paying any other creditor of the seller.
- The terms of the transfer are commercially reasonable and negotiated at arm's-length.
- The SPE and seller are solvent at the time of the transfer.
- The seller retains any recourse or repurchase rights to the assets
- The parties intend to treat the transfer as a "true sale"; and
- There is evidence of a complete chain of assignments and transfers of the assets.

For transactions that do not involve a "true sale" of assets to the SPE (such as transactions that qualify for "safe harbor" treatment under insolvency laws), one typically evaluates the bankruptcy risks for those transactions on a case-by-case basis, and is likely to give greater attention to the entity pledging the assets or providing credit enhancement with respect to such transactions. If the sale of the assets to the SPE require compliance with the provisions of Article 9 of the Uniform Commercial Code ("UCC") (as is the case with sales of accounts, chattel paper, promissory notes and payment intangibles), one will generally look for indications of such compliance similar to that which it looks for when confirming that the SPE has a perfected "back-up" security interest.

## "True Sale" Documentation

EJR typically does **NOT** review “True Sale” documentation and any related opinions. To protect against the possibility that a court might re-characterize the sale of the assets from a seller to the SPE as a secured lending, a “back-up” security interest in the assets in favor of the SPE may have been created pursuant to the transaction documents and that such security interest either has been perfected or appropriate actions will be taken to perfect that security interest. A perfected security interest should ensure that the SPE will be treated as a “secured creditor” (as defined in the Bankruptcy Code) in the event of a bankruptcy proceeding against a seller in a transaction and any potential re-characterization of the “true sale” as a financing. The method of perfection depends on the type or types of assets held by the SPE.

Security interests in assets may be perfected by filing a UCC financing statement (which includes most assets that qualify as personal property except deposit accounts, goods, titled assets, other assets subject to federal statute and certain other assets), assurances that the collateral description in the financing statement is accurate and that it covers any property that the SPE may acquire after the closing date of the transaction. Generally, a UCC financing statement must be filed against each seller in the chain of sale from the originator to the SPE. Ultimately, a UCC financing statement must reflect the assignment of the SPE’s security interest in the assets to the trustee. The trustee retains the security interest for the benefit of the investors and other secured parties in the transaction.

To the extent that any cashflows for a transaction are held in accounts that are not segregated accounts, credit quality will typically suffer.

## Non-consolidation

EJR typically does **NOT** take into account factors that would be relevant in determining whether in a case brought under the Bankruptcy Code involving a seller, as debtor, a United States bankruptcy court would not disregard the separate organizational existence of the SPE so as to consolidate the assets and liabilities of the SPE with those of the seller (and thereby give effect to the equitable doctrine of “substantive consolidation”). A bankruptcy court generally looks to whether (1) creditors dealt with the SPE and the seller as a single economic unit and did not rely on their separate identity in extending credit and (2) the affairs of the SPE were so entangled with those of the seller that consolidation would benefit all creditors. Specific factors that are applicable to this analysis generally include some of the considerations mentioned above, including: the organization, separate existence, and independent identity from the entity that the SPE would be consolidated with seller. There is also the risk of substantive consolidation with an affiliate of the seller particularly if an affiliate of a seller guarantees any of the obligations of the seller or purchases securities issued by the SPE, including as part of any risk retention.

## Documentation and Opinion Review

When evaluating legal risks in connection with an SF transaction and determining whether the above-mentioned criteria have been met, EJER typically does **NOT** review the operative transaction documents, organizational documents of the SPE and other transaction parties, officer’s certificates or legal opinions. Any certificates should be executed by an authorized officer of the company, particularly one that is knowledgeable about the facts and circumstances that such certificates relate to.

EJR typically does **NOT** review the transaction agreements to evaluate the following: the transaction's overall structure, including the payment waterfall, any triggers and associated remedies, the representations and warranties provided by the transaction parties and the enforcement mechanisms for a breach thereof, the servicing standards, other obligations of the seller, servicer, trustee and other transaction parties, events of default and associated remedies, servicer replacement rights, other investor rights and remedies, and other transaction terms. The content of the operative agreements will be evaluated in conjunction with the overall transaction analysis, including originator and servicer evaluations and analysis of the credit enhancement provided by the structure. To the extent provisions in the transaction documents are materially weaker than market standards or do not provide protections consistent with expectations for the applicable type of transaction absent adequate compensating factors, EJER might consider the absence of such protections in its overall rating assessment.

For each transaction that it rates, EJER generally does NOT receive legal opinions relating to (1) corporate law matters; (2) enforceability matters with respect to the transaction documents and the transaction parties, (3) securities law matters, (4) the true sale of the assets, (5) the creation and perfection (and in certain cases, priority) of any security interest in the assets, (6) the substantive consolidation of the SPE with other entities and (7) tax matters.

For entities that are subject to insolvency or receivership schemes other than the Bankruptcy Code, EJER generally does **NOT** expect to see legal opinions that provide assurances with respect to the legal isolation of the assets that are similar to the opinions referred to herein with respect to entities that are subject to the Bankruptcy Code.

## IV. Nontraditional Structured Ratings

### Interest-Only (IO) Securities Rating Process

Below is a description of the key steps in the rating process.

#### I. Identify Referenced Obligation(s)

The first step for analyzing the IO security is to identify which class, classes, pools and/or other obligation, the IO security references and how much associated structured cash flow is assigned to the IO security.

#### II. Calculating a Weighted Average Rating Score (WARS)

The second step is to calculate an Egan-Jones Ratings' weighted average rating score for the designated security(s). The rating is based on calculating the proportion of assigned cash flow to the referenced rated obligation(s) and then calculating a weighted average.

## Weighted Average Rating Example

	<b>EJR Rating</b>	<b>EJR Numerical Rating</b>	<b>Referenced Balance</b>	<b>% of X1 Class</b>
Class C	AA-	120	\$ 80,000,000	59.26%
Class D	BBB+	353	\$ 35,000,000	25.93%
Class E	B+	3214	\$ 20,000,000	14.81%
<b>X1 Class (IO)</b>	<b>BBB-</b>	<b>639</b>	<b>\$ 135,000,000</b>	<b>N/A</b>

### III. Cash Flow Modeling

When assigning the rating, EJR may run a cash flow model to incorporate further structural nuances such as, but not limited to, scheduled prepayment penalties, as well as consider quantifying qualitative components to the rating.

### IV. Assigning Ratings

EJR will then assign a rating to the IO security(s).

In our view, the essence of assigning rating is the determination of estimated loss (EL) calculations and matching those calculations

## Exchangeable Securities Rating Process

Below is a description of the key steps in the rating process.

### I. Identify Referenced Obligation(s)

The first step for analyzing the exchangeable security(s) is to identify which class, classes, pools and/or other obligation, the exchangeable security references and how much associated structured cash flow is assigned to the exchangeable security.

### II. Calculating a Weighted Average Rating Score (WARS)

The second step is to calculate an Egan-Jones Ratings' weighted average rating score for the designated security(s). The rating is based on calculating the proportion of assigned cash flow to the referenced rated obligation(s) and then calculating a weighted average.

## Weighted Average Rating Example

	<b>EJR Rating</b>	<b>EJR Numerical Rating</b>	<b>Referenced Balance</b>	<b>% of X1 Class</b>
Class C	AA-	120	\$ 80,000,000	59.26%
Class D	BBB+	353	\$ 35,000,000	25.93%
Class E	B+	3214	\$ 20,000,000	14.81%
<b>X1 Class (IO)</b>	<b>BBB-</b>	<b>639</b>	<b>\$ 135,000,000</b>	<b>N/A</b>

### III. Cash Flow Modeling

When assigning the rating, EJ R may run a cash flow model to incorporate further structural nuances such as, but not limited to, scheduled/support reconfigurations, maturity reconfigurations, coupon stripping, floater/inverse floater reconfigurations, as well as consider quantifying qualitative components to the rating.

### IV. Assigning Ratings

EJR will then assign a rating to the exchangeable security(s).

## Securities Supported by Defeased Assets Rating Process

Below is a description of the key steps in the rating process.

### I. Identify Referenced Obligation(s)

The first step for analyzing the affected security(s) is to identify which class, classes, pools and/or other obligation, the security's collateral references.

### II. Identify Security's Priority of Payment

The second step is to identify the security's priority of payment within the waterfall structure of the securitization.

### III. Calculate the Amount of Defeasance and Identify Defeased Assets

The third step is to calculate the amount of defeasance within the securitization and then identify, the defeased assets new collateral within the securitization.

## IV. Cash Flow Modeling

EJR will then run a cash flow model to determine if any classes within the securitization are being enhanced by defeased assets and if so, what percentage of the class is being enhanced.

## V. Assigning Ratings

If EJER determines that a class is being 100% supported by defeased assets that are supported by AAA securities and that support is irrevocable, such as, but not limited to, U.S. Treasury bonds, U.S. Treasury notes, U.S. Treasury bills, then the security(s) could be assigned an EJER AAA rating.

## Mechanics of Assigning Ratings

In our view, the essence of assigning rating is the determination of estimated loss (EL) calculations and matching those calculations with EJER's internal loss matrices. In deriving such EL estimates, we consider various qualitative and quantitative factors and the possible variation in possible outcomes. Additionally, there is a recognition that over time, the uncertainty levels often decline and with it, the true rating becomes more certain. For example, with the passage of time and the building of equity in one's home, the probability and attractiveness of a default declines and as a result, the uncertainty declines. In determining appropriate ratings, the major source of uncertainty is on the asset side as the liabilities are known and it is simply a matter of calculating the waterfall, which is set at the onset of the transaction or post any refinancing. Regarding the assets, there are some major variables which are helpful for the proper calculations:

- Expected cashflow from financial obligation
- Expected cashflow from remarketing, residual, redeployment
- Variability in the above based on each case and based on diversity of the pool
- Probability each tranche will receive interest and eventual principal repayment
- Impact of qualitative factors on the above
- For each tranche, determination of EL, variability of EL and a match to the Implied rating
- An assignment of the rating with an explanation for variation from the implied rating

## Interest Rate Risk

Often, the loans are floating rate, and as such, EJER may elect to apply a stress. To the extent that a loan has an interest rate cap from a counterparty rating consistent with EJER methodologies, EJER looks to the lower of the EJER stressed rate or the interest rate cap. To the extent that these transactions allow for a period of predefined ramp up loans or re-purchase loans, EJER makes the assumptions that future loans will look similar to a sample of the loans already in the pool or based on parameters that would mimic a worst-case pool construct.

## Surveillance

Typically, EJR reviews SF ratings on an annual basis. Our approach to monitoring the rating of outstanding transactions is generally like the approach we use to assign the initial ratings. Ratings may change based on the appropriate metric used to reflect the risk of default.

EJR views the assignment of an initial rating as the starting point of an analytical process that continues for the life of the transaction. EJR views ongoing transaction surveillance as critical for outstanding ratings to continue to reflect the credit risk of a securitization over its life and providing insights into assets, servicer, and transaction performance that can inform the new issue rating process.

Depending on specific performance concerns, or if EJR believes that other factors, such as the economic or industry cycle, are likely to cause material changes in performance, further analysis may be undertaken. After preparing the requisite analysis, the analyst may recommend a rating action or rating affirmation.

## Rating Cap and Smoothing

Based on economic and market conditions, EJR may in its discretion, determine that ratings, specifically structured finance ratings should either be capped or notched down (up to 2 notches) from the initial (i.e., uncapped and unsmoothed) model implied ratings based on qualitative assessments. When a transaction's rating is capped, if there are multiple tranches, the ratings in the capital stack will typically be notched down and smoothed accordingly.





## Appendix A – Application

### Loss Timing Curve

For some SF transactions, EJR uses the smoothed curve for loss timing to project the cumulative net losses. The chart below compares the projected cumulative net losses (projected based on this loss timing curve) with cumulative net losses to date for each deal. For example, in order to gross up expected losses to complete the full 48 month loss curve, EJR divides the cumulative net losses in month 30 by the percentage of losses that have historically occurred, based on this loss timing curve, in order to determine the expected amount of losses that will occur ( $5.91\%/73.32\%=8.06\%$ ).

EJR then reviews the average expected cumulative net losses for other deals, in addition to the average for select periods. In many cases, static pool data, which enables the comparison to review trends relative to other time periods. EJR also examines the minimum and maximum loss values to determine the overall range of performance over time, which is generally evaluated considering the existing credit and economic environment during the applicable time period.

Losses to date:	3.01%
Portion of Total Losses normally realized by the 30 <sup>th</sup> month:	73%
Expected Cumulative Losses	$(3.01\%/73\%) = 4.12\%$

### EJR Loss Multiple Range

EJR might review stress case multiples for various asset classes considering historical variability of losses, the economic and credit cycle, and market trends. There may also be situations when EJR determines that a deal warrants a higher multiple because of higher concentrations (for example, geographic concentrations or vehicle type, manufacturer, or model concentrations).

For example, EJR's subprime SF loss multiples for a 'AAA' rated class might range between 2.50 – 4.00 times. In order to stress losses to a 'AAA' level, EJR may have determined that the 'AAA' stress case multiple for this example issuer and transaction would be 3.25, the middle of the 'AAA' stress multiple range and because the originator and servicer in this example are considered experienced and capable. Therefore, in this example the transaction credit enhancement would need to cover a cumulative net loss level of 39% (base case net loss of 12% x 3.25 = 39%) at the 'AAA' level.

#### Typical Loss Coverage Ratios and Collateral Enhancement Levels:

Rating	Loss Coverage (x)	Collateral Enhancement
AAA	5.0	30.0
AA	4.0	25.0
A	3.0	20.0
BBB	1.5 to 2.0	15.0
BB	<1.5	10.0
B	<1.0	5.0

## Appendix B – Other ABS/SF Methodologies

In addition, EJR further describes its rating approaches and methodologies in the following SF areas:

Collateralized Loan Obligations (CLOs) Methodology (Non-NRSRO)

Methodology for Rating Commercial Mortgage Backed Securities (CMBS) (Non-NRSRO)

These methodologies are publicly available on EJR's website <https://egan-jones.com/methodologies>