RATING METHODOLOGIES

Consumer Loan Asset-Backed Securities

2025

1. TASSNIEF'S Consumer Loan Asset-Backed Securities Rating Methodology

1.1. Summary: A Simplified Sequential Approach

The rating methodology describes Tassnief's approach to assessing ratings of Asset-Backed Securities (backed by consumer receivables) or Consumer Loan Asset-Based Securities (Consumer Loan ABS). The methodology applies to structures comprising portfolios of loans with similar underlying assets (such as mortgage loans or credit card debt), that are expected to be repaid over time and are provided to many different individual borrowers.

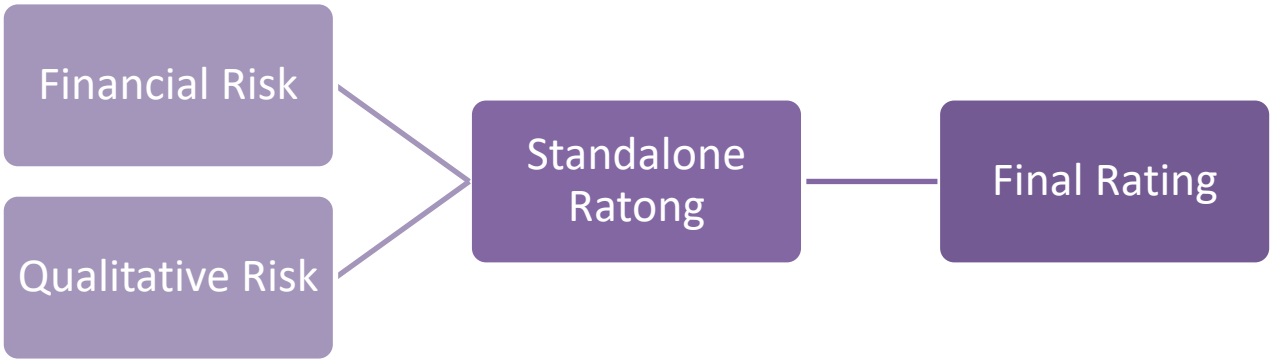
A Consumer Loan ABS is a structured security where consumer loans are pooled into a special-purpose vehicle and financed through bonds, with the loan payments used to service the bondholders. In short, Asset Backed Securities comprise multiple small loans packaged into one large investment. For example, 10,000 consumer loans are bundled together, investors then buy pieces of this bundle, which is termed as an ABS.

The Consumer Loan ABS rating provides an assessment of a structure's risk with two broad dimensions for arriving at the standalone ratings: (A) Financial Risk and: (B) Qualitative Risk, with several sub-factors. During the ratings process, each area is evaluated and all assessments are combined to determine the final rating. The evaluation criteria comprise a combination of both quantitative and qualitative factors. The assignment of a rating to a Consumer Loan ABS entails understanding and testing all protections in place, to ensure investors receive their promised payments (cash flows), even under stress. Accordingly, the rating process entails evaluation of the following key factors:

- **Financial Risk:** Financial risk analysis includes establishing base case default rate and recovery rates through analysis of historical performance data, peer comparisons and economic outlook. Assumptions are subjected to rating-specific stress testing using multipliers and haircuts. Higher-rated structures face more severe stress conditions. Using a comprehensive cash flow model, the methodology evaluates the structure's ability to meet payment obligations under stress through three key coverage tests.

- **Qualitative Risk:** The methodology incorporates qualitative factors that can significantly impact structure performance, including legal structure analysis to ensure true sale and bankruptcy remoteness, operational risk assessment covering servicer capabilities and backup arrangements, evaluation of underwriting standards and originator practices, ESG considerations and regulatory compliance review.

Figure 1. Summary of TASSNIEF'S sequential approach for Consumer Loan ABS ratings



1.2. Standalone Rating of Consumer Loan ABS (SR.A)

1.2.1. Definition and General Principles

The Consumer Loan ABS rating provides an assessment of a structure's risk with two broad dimensions for arriving at the standalone ratings: (A) Financial Risk and: (B) Qualitative Risk, with several sub-factors. The assignment of a rating to a Consumer Loan ABS entails understanding and testing all protections in place, to ensure investors receive their promised payments (cash flows), even under stress.

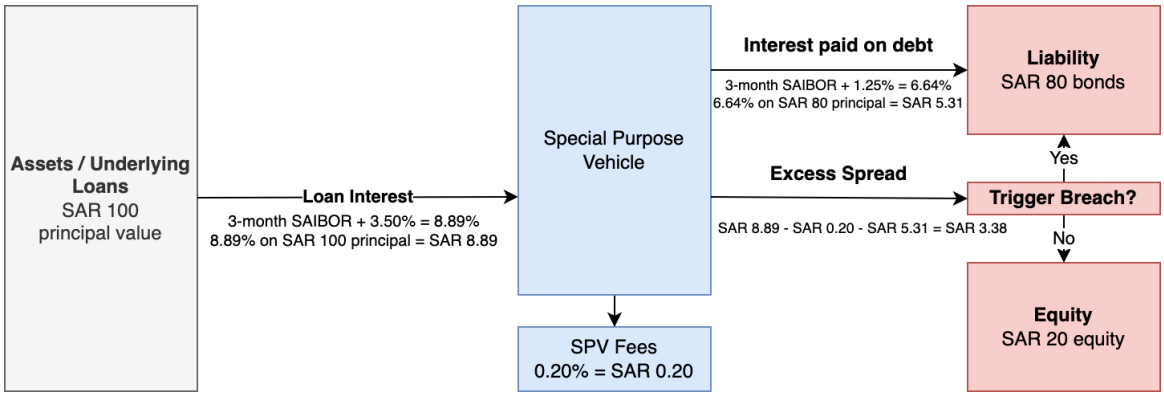
1.2.2. Rating Factors

Financial Risk

The financial risk assessment entails an analysis of the credit quality of the consumer loans underlying the structure. It covers both a review of quantitative indicators, as well as qualitative adjustments based on factors such as historical trends and economic outlook.

A Consumer Loan ABS is a structured security where consumer loans are pooled into a special-purpose vehicle and financed through bonds, with the loan payments used to service the bondholders.

Figure 2: Example of a Consumer Loan ABS



A Consumer Loan ABS uses excess spread as a key credit enhancement mechanism, where the difference between loan yields and bond payments provides a buffer that can be redirected to protect bondholders when performance triggers are breached. For example, a Consumer Loan ABS (see Figure 1) comprises a Special Purpose Vehicle (SPV) holding SAR 100 in loans. The loans yield 8.89% (3-month SAIBOR + 3.50%), while bonds on SAR 80 principal pay 6.64% (SAIBOR + 1.25%) or SAR 5.31. The excess spread is the amount left over from the loan interest of SAR 8.89, after paying the SPV fees of SAR 0.20 and interest paid to bondholders of SAR 5.31. In this case, the excess spread is SAR 3.38. A trigger breach determines if excess spread supports bonds or equity. The trigger breach (e.g. excess spread falling below SAR 3.38) further protects bondholders by redirecting available funds to them if the spread narrows, highlighting its role as a credit enhancement.

<u>Estimation of Base Case Default Rate and Base Case Recovery Rate</u>

Base Case Default Rate

A key factor of the rating is determining the portion of loans in the Consumer Loan ABS that would default over time. This is termed as the Base Case Default Rate. It is the percentage of loans in a pool that are predicted to default over the pool's lifetime. This is important because it determines the risk bondholder's face, a higher than expected Base Case Default Rate, means lower ratings and higher interest rates compensate investors for the increased risk of losses.

In this case, default is defined as a credit event occurring from a missed or delayed payment of principal or interest, the borrower's bankruptcy or legal receivership, or a situation where an obligor offers creditors a new or restructured debt or a package of securities, cash or assess that represents a diminished financial obligation. Under IFRS 9, Stage 3 Exposures represent financially impaired assets are treated as defaulted.

To estimate the Base Case Default Rate, the primary procedure is to analyze historical defaults data. The key information sources for this analysis are:

a) Aggregate Portfolio
b) Static Pool

While doing this analysis, Tassnief may also adjust the Base Case Default Rate for temporal trends, age of loans, changes in operating mechanisms, variation in the type of loans in the pool or changes in economic environment. In cases where historical data is not available, for example, if loan pools haven't matured fully yet and only partial data exists, Tassnief may use available data to estimate the default rate for remaining years. The process also entails adjustment pertaining to factors such as changes in economic conditions, limited history of lender or changes in underwriting standards.

Aggregate Portfolio

The Aggregate Portfolio data comprises all the consumer loans that the bank currently has and therefore, is a changing mix of all the lender's loans (a snapshot of everything the bank has at the moment). For example, the data comprises all the consumer loans that the bank currently has (SAR 500m worth). It includes loans from 2020, 2021, 2022, 2023 and 2024, all mixed together. The current default rate across all loans could be 3%.

In the case of Aggregate Portfolio data, newer loans (2023-2024) might not have had the time to default yet, the bank may have tightened lending standards in 2023 or the bank may have grown rapidly in 2022. In all such cases, and other similar scenarios, the default rate based on Aggregate Portfolio may be adjusted.

Static Pool

The Static Pool data comprises a fixed group of consumer loans from the same time period and their track, from start to finish. For example, the Static Pool looks at all car loans made in 2020 (SAR 50m worth) and tracks what happened to those specific loans over 4 years. The result could indicate a default rate of 4% in Year 4. This gives a clearer picture since they followed the same group from start to finish.

Base Case Recovery Rate

The second major step involves estimation of the Base Case Recovery Rate. The Base Case Recovery Rate is the percentage of the original loan amount that the lender is able to collect after a loan has defaulted. For example, the original loan is of SAR 1,000 and the amount recovered after default is SAR 150. In this case, the recovery rate is 15%. It is calculated only on loans that have already been declared in default.

As is the case with estimation of Base Case Default Rate, aggregate portfolio data or static pool data is used. Adjustments are made with regards to factors such as economic conditions, the pace or timing of recovery and the definition of recovery in the specific context of the structure.

<u>Cash Flow Stress Testing</u>

Using the Consumer Loan ABS prospectus, the estimated Base Case Default Rate and Base Case Recovery Rate, Tassnief prepares a cash flow analysis model based on the contractual payment terms.

We match the timing and amount of cash inflows (borrower loan payments collected by the servicer) against cash outflows (debt service payments due to ABS noteholders) to assess the adequacy of the transaction's cash flow waterfall.

The model comprises three parts, namely:

a) Structure
b) Stress Testing Variables
c) Cash Flow Analysis

Structure

The structure segment comprises consolidation of key data such as initial pool balance, initial note balance, weighted average coupon rate, tenor, note rate and initial overcollateralization ratio.

Stress Testing Variables

Historical default rates represent the normal situations, and accordingly, stress testing is needed to see what happens in adverse situations.

To account for potential economic downturns, stress multiples are applied to the Base Case Default Rate. A 2% historical default rate might jump to 6-10% during a recession. The multiples simulate these conditions. Given that higher rated structures are deemed the safest, they are tested against the most stressed multiples. As the risk increases, the stress multiples also decrease. In other words, higher-rated structures need larger safety margins.

Historical recovery rates represent normal situations. Therefore, stress testing is needed to see what happens when collection conditions get worse. In economic downturns, collections get harder, and a 20% historical recovery rate might drop to 5-10% during a severe recession. The haircuts simulate these stressed collection environments. Higher rated structures need larger safety margins, and therefore, higher recovery haircuts. Recovery haircuts simulate economic crises where recovering amounts from defaulted loans becomes much harder.

Saudi Arabia's banking sector demonstrates superior asset quality indicators compared to global benchmarks, justifying downward adjustments to default multiples and recovery haircuts. As per the World Bank, KSA has a non-performing loans to total gross loans ratio of 1.5% in 2023, compared to the global average of 5.7% (based on most recently available value)[1].

[1] https://data.worldbank.org/indicator/FB.AST.NPER.ZS

Figure 3: Rating-Specific Stress Testing Variables

Rating	Base Case Default Rate Multiplier (x)	Base Case Recovery Haircut (%)
AAA	4.00	40%
AA	3.00	30%
A	2.50	20%
BBB	2.00	15%
BB	1.50	10%
B	1.25	5%

Cash Flow Analysis

After applying stress multiples to increase defaults and recovery haircuts to reduce recoveries, the methodology runs a period-by-period cash flow analysis over the structure's life. In each period, the model calculates total collections (scheduled payments plus recoveries from prior defaults) and compares them against required payments (interest and principal).

The analysis then applies rating-specific coverage tests. Monthly Overcollateralization analysis measures if the remaining loan balances provide sufficient cushion. And the Interest Coverage analysis tests if collections can cover interest payments. While the Available Funds analysis tests if collections meet total payment obligations. The structure fails if any coverage ratio falls below the required minimums, with higher-rated bonds requiring stronger coverage ratios to pass their respective stress scenarios.

Case Study Example: Consumer Loan ABS Rating Analysis

This case study example shows the application of Tassnief's Consumer Loan ABS rating methodology to an example of a SAR 100,000 consumer loan portfolio. The structure involves a 12-month tenor with an initial overcollateralization ratio of 125%, where SAR 80,000 in notes are backed by SAR 100,000 in consumer loans.

Figure: Key Structure Parameters

Factor	Data
Initial Pool Balance	100,000
Initial Note Balance	80,000
Weighted Average Coupon (WAC)	30.00%
Note Rate	12.00%
Tenor (months)	12
Initial Overcollateralization Ratio	125.00%

Base Case Assumptions

Through analysis of the originator's historical performance data and peer comparisons, the following base case assumptions are established:

- **Base Case Default Rate**: 12.50%
- **Base Case Recovery Rate**: 5.00%

Stress Testing

Stress parameters corresponding to a "B" rating level are applied as given below:

Figure: Stress Testing Assumptions

Factor	Data
Base Case Default Rate Multiplier	1.25x
Recovery Rate Haircut	5%

Figure: Cash Flow Analysis Results

Period	1	2	3	4	5	6	7	8	9	10	11	12
Beginning Balance	100,000	91,449	82,829	74,134	65,363	56,511	47,574	38,548	29,430	20,214	10,899	1,478
Scheduled Principal	7,249	7,430	7,616	7,806	8,001	8,201	8,406	8,616	8,832	9,053	9,279	1,478
Scheduled Interest	2,500	2,286	2,071	1,853	1,634	1,413	1,189	964	736	505	272	37
Defaults	1,302	1,191	1,078	965	851	736	619	502	383	263	142	19
Recoveries	-	5	5	4	4	3	3	2	2	2	1	1
Total Collections	**9,749**	**9,721**	**9,691**	**9,664**	**9,639**	**9,617**	**9,599**	**9,583**	**9,570**	**9,560**	**9,552**	**1,515**
Payments												
Beginning Balance	80,000	71,051	62,130	53,239	44,375	35,536	26,719	17,920	9,138	368	-	-
Interest Paid	800	800	800	800	800	800	800	800	800	800	800	800
Principal Paid	8,949	8,921	8,891	8,864	8,839	8,817	8,799	8,783	8,770	368	-	-
Total Payments	**9,749**	**9,721**	**9,691**	**9,664**	**9,639**	**9,617**	**9,599**	**9,583**	**9,570**	**1,168**	**800**	**800**
Excess Spread	-	-	-	-	-	-	-	-	-	8,392	8,752	715
Rating Assignment												
Monthly Overcollateralization	125%	129%	133%	139%	147%	159%	178%	215%	322%	5494%	N/A	N/A
Interest Coverage (Total Collection/Interest Paid)	12.2	12.2	12.1	12.1	12.0	12.0	12.0	12.0	12.0	11.9	11.9	1.9
Available Funds Test (Total Collection/Total Payments)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	8.2	11.9	1.9
Test Results												
Monthly Overcollateralization	**PASS**											
Interest Coverage (Total Collection/Interest Paid)	**PASS**											
Available Funds Test (Total Collection/Total Payments)	**PASS**											

As the structure meets the “B” rating requirements, the stress parameters corresponding to a "BB" rating level are applied as given below:

Figure: Stress Testing Assumptions

Factor	Data
Base Case Default Rate Multiplier	1.50x
Recovery Rate Haircut	10%

Figure: Cash Flow Analysis Results

Period	1	2	3	4	5	6	7	8	9	10	11	12
Beginning Balance	100,000	91,189	82,334	73,432	64,478	55,470	46,402	37,270	28,072	18,801	9,455	28
Scheduled Principal	7,249	7,430	7,616	7,806	8,001	8,201	8,406	8,616	8,832	9,053	9,279	28
Scheduled Interest	2,500	2,280	2,058	1,836	1,612	1,387	1,160	932	702	470	236	1
Defaults	1,563	1,425	1,286	1,147	1,007	867	725	582	439	294	148	0
Recoveries	-	6	5	5	4	4	3	3	2	2	1	1
Total Collections	**9,749**	**9,716**	**9,679**	**9,647**	**9,617**	**9,592**	**9,570**	**9,551**	**9,536**	**9,524**	**9,516**	**29**
Payments												
Beginning Balance	80,000	71,051	62,136	53,256	44,410	35,592	26,800	18,031	9,280	544	-	-
Interest Paid	800	800	800	800	800	800	800	800	800	800	800	800
Principal Paid	8,949	8,916	8,879	8,847	8,817	8,792	8,770	8,751	8,736	544	-	-
Total Payments	**9,749**	**9,716**	**9,679**	**9,647**	**9,617**	**9,592**	**9,570**	**9,551**	**9,536**	**1,344**	**800**	**800**
Excess Spread	-	-	-	-	-	-	-	-	-	8,180	8,716	-
Rating Assignment												
Monthly Overcollateralization	125%	128%	133%	138%	145%	156%	173%	207%	302%	3455%	N/A	N/A
Interest Coverage (Total Collection/Interest Paid)	12.2	12.1	12.1	12.1	12.0	12.0	12.0	11.9	11.9	11.9	11.9	0.0
Available Funds Test (Total Collection/Total Payments)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	7.1	11.9	0.0
Test Results												
Monthly Overcollateralization	**PASS**											
Interest Coverage (Total Collection/Interest Paid)	**FAIL**											
Available Funds Test (Total Collection/Total Payments)	**FAIL**											

Conclusion

Based on the cash flow analysis results, the structure fails to meet the "BB" rating requirements due to Interest Coverage test failure and Available Funds test failure. Given the test passing at “B” rating and test failing at "BB" rating, this structure would likely receive a rating of "B" or below, or require additional credit enhancements such as increased overcollateralization.

Qualitative Risk

Qualitative risk factors include the security’s legal structure, underwriting standards, due diligence process, ESG considerations and regulatory compliance.

Legal Structure

Tassnief reviews the legal documentation of the structure, with the principal source being the consumer ABS prospectus. In this regard, the key party analyzed is the originator. Tassnief evaluates whether the structure has acquired the underlying asset in a way that is enforceable against the originator. With the transfer of title acquired by true sale, assignment or a transfer with the same legal implication as a true sale or assignment. It needs to be ensured that if the originator declares insolvency, the legal ownership of the underlying asset by the structure, is not impacted by clawback provisions.[2]

Underwriting Standards

The underwriting standards of the originator are reviewed to assess the general quality of the portfolio and form a view with regards to its performance over the course of the transaction.

[2] https://www.handbook.fca.org.uk/handbook/SECN/2/2.html?date=2024-11-27

Tassnief may adjust the rating itself, or the assumptions in financial risk dimension, based on a reasonable assessment of the rating committee with regards to this.
Our assessment must be specific to the actual loans and borrowers included in the transaction, not just the originator's overall portfolio quality. We form a view on the expected performance of these specific assets over the course of the transaction, considering both the credit quality of the underlying loans and the tranche's position in the structure (with senior tranches having first priority on cash flows).

Due Diligence Process
Due diligence process covers an evaluation of the experience of the key stakeholders (including but not limited to originator, trustee and servicer), the way they have handled risks in the past and collected payments. This is monitored at-least once every 2 years, and in case of any notable changes, the rating may be revised.

ESG Considerations
Environmental, Social and Governance (ESG) considerations for Consumer Loan ABS ratings assess the structure's exposure to ESG risks, and evaluate how effectively its stakeholders integrate these factors into the structure's operations.

Regulatory Compliance
The relationship with regulator and its view, if any, on the quality of disclosures are key rating factors. Additionally, Compliance with the regulatory requirements for disclosures is checked, along with the extent to which the data reflects the economic reality of the structure.

RATINGS METHODOLOGY

Consumer Loan Asset-Backed Securities

Published by TASSNIEF