Structured Finance Rating Methodology – Consumer ABS

1. Introduction

This methodology needs to be evaluated as a whole with the document "General Structured Finance Rating Methodology" published in February 2023.

The structured finance instrument's rating, as it happens with other financial products or entities, refers to creditworthiness or solvency of instrument. The rating must be considered as a dynamic element in continuous review and predictive character because it is based on future default probabilities.

The structured finance instrument payments will depend mainly on the underlying portfolio asset's payments as well as those structural improvements designed to protect the instrument bonds payments. Therefore, the bonds' credit risk will be linked not only to the counterparty risk of the Securitization Fund's financial agents, also and especially to the collateral assets' quality and their structure.

Structured finance product's Credit rating scale: EthiFinance Ratings has a set of scales designed to determine the credit rating of an entity, using an alphanumeric system with different levels. The issued ratings range from top solvency levels to more degraded levels with the possibility of insolvency. The long-term credit rating scale and the definition of each of the rating categories can be found in the *"Credit Rating Scale & Definitions"* document that appears on the EthiFinance Ratings website.

2. Scope

The methodology referred to this document applies to Consumer ABS backed by consumer loans, auto loans, credit cards and leases. EthiFinance Ratings evaluates qualitative and quantitative factors to determine the final rating of the transaction.

The methodology applies to Consumer ABS transactions, with the application of the given assumptions based on the idiosyncrasies of the country and their assets. If it is required, the methodology may vary by introducing any ad-hoc variables that may be required to analyse additional specific risk factors of the transaction.

3. Consumer ABS Assessment

3.1 Collateral

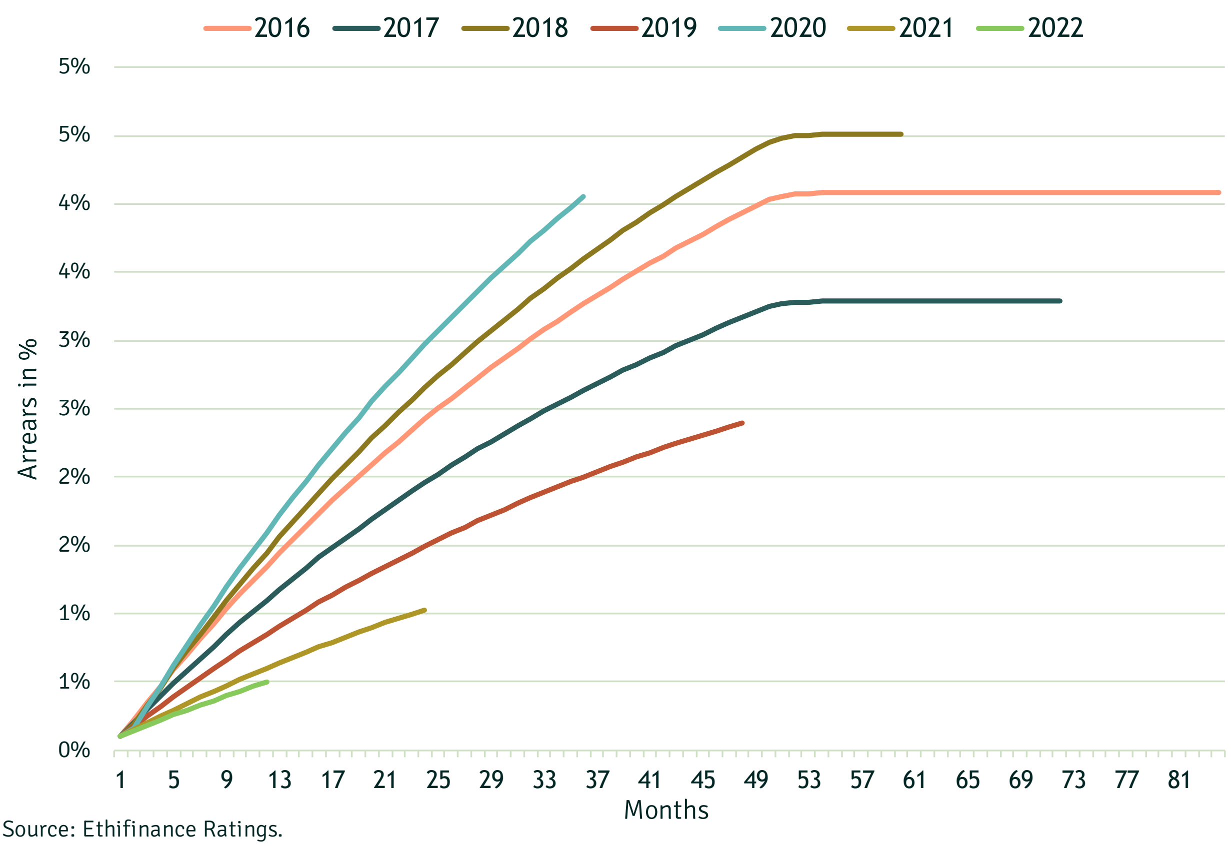
3.1.1 Historical Performance Information

EthiFinance Ratings relies on the historical performance provided by the originator as a key input in the analysis, and it is used in establishing the base case.

The originator is expected to provide from three to five years of static historical data that should be sufficiently granular and cover a full economic period, to evaluate the past impact of macroeconomic factors. The data should also be representative of the originators policies to be a valid reference for the securitised transaction.

EthiFinance expects to receive the historical performance information in the form of static and dynamic values, as they relate to default (gross loss), delinquency, residual value, recoveries and prepayment ratios by vintage of origination/default on a monthly or quarterly basis. The vintages should be broken down into different categories such as asset characteristics (amortising vs. bullet, loan tenor, interest rate…), debtor type, and collateral characteristics (new cars vs. used cars).

Arrears information by Vintages



Source: Ethifinance Ratings.

Other public market information or from other transactions rated by EthiFinance may also be used as a source of information, to calibrate the estimations.

In cases where the information provided is deemed to be insufficient, the Agency may apply a rating cap or even decline to rate the transaction.

3.1.2 Portfolio Composition and Asset Characteristics

The stratified data provided is used to perform an assessment of its most relevant characteristics and to segregate it into several groups to facilitate the analysis of common risks and help to form an accurate opinion of each risk characteristic. Distinct groups or assets types can exhibit different credit performance.

Asset and portfolio eligibility criteria are reviewed to assess the potential risks on the transaction.

For example, in revolving-type transactions, EthiFinance expects to see tight eligibility criteria to ensure the future credit quality of the assets such as maximum single debtor exposure, maximum regional concentration, maximum percentage of residual value or bullet loans, maximum outstanding balance, maximum and minimum loan tenors, minimum spread and/or interest rate, limits on collateral types, limitation on delinquencies, employee loan restrictions, etc. Additionally, concentrated portfolios in terms of debtors, industries or geography, generally increases the volatility of the future performance.

<u>The key drivers for Consumer ABS assets:</u>

Consumer Loans are usually unsecured with a wide variety of purposes, short and/or medium-term tenors, small size, and well diversified at the debtor level. The key characteristic analysed include: term, origination channel, interest rate, purpose, repayment type, payment holiday options.

Auto Loans and Leasing Assets are very granular with the most common asset being autos. The key characteristic analysed include: original and remaining tenor, origination channel, repayment type, interest rate, prepayment options, financing amount (“LTV”), new vs. used, make, model, manufacturer, turn-in rate, residual value, market value, voluntary termination (UK transactions).

At the end of the lease/loan contract, the debtor has to decide between two options: i) to return the vehicle “turn-in rate” or ii) to purchase the vehicle “paying the residual value established in the contract”.

The turn-in rate at maturity is determined by the difference between the market value of the asset and the residual value established in the contract. Based on this, when the market value is lower than the residual value the lessee is likely to turn-in the vehicle. We apply the following table to determine turn-in rate assumptions for each rating category.

Transaction Rating		Turn-in Rate
AAA	AAA (sf)	100%
AA	AA (sf)	95%
A	A (sf)	90%
BBB	BBB (sf)	80%
BB	BB (sf)	50%
B	B (sf)	40%

Source: Ethifinance Ratings.

Residual value risk depends on the turn-in rates and the market value vs. the residual value established in the contract. To assess residual value risk, EthiFinance relies on historical information provided by the originator about sale proceeds vs. contract residual value, residual value-setting strategies, asset quality, macroeconomic conditions and a forecast of future market values. Leases with higher residual value allow the customers to have lower monthly payments but increases risks.

The following table is used as general guidance and may be adjusted to capture the factors that can impact the residual value risk.

Transaction Rating		Rating Haircut
AAA	AAA (sf)	40%
AA	AA (sf)	33% - 38%
A	A (sf)	26% - 31%
BBB	BBB (sf)	19% - 24%
BB	BB (sf)	11% - 16%
B	B (sf)	5% - 10%

Source: Ethifinance Ratings.

The size of the credit enhancement to cover residual value risk, is calculated in three stages as shown in the following example:

AAA scenario

1. Residual value exposure
    a. Initial residual value exposure (% of the initial portfolio): 50%
    b. Cumulative defaults: 20%
    c. Cumulative prepayments: 5%
    d. At maturity: 50%*(100%-20%-5%) = 37.5%

   e. Turn-in rate: 100%

   f. The final residual value exposure will be: 100%*37.5% = 37.5%

2. Residual value loss

   a. Sale proceeds: MIN (Sale amount vs. Contract residual value; 100%) – MIN (95%; 100%): 95%

   b. Rating haircut: 40%

   c. Stress sale proceeds: 100%-(95%*(100%-40%)) = 43.0%

3. CE residual value risk: 37.5%*43.0% = 16.13%

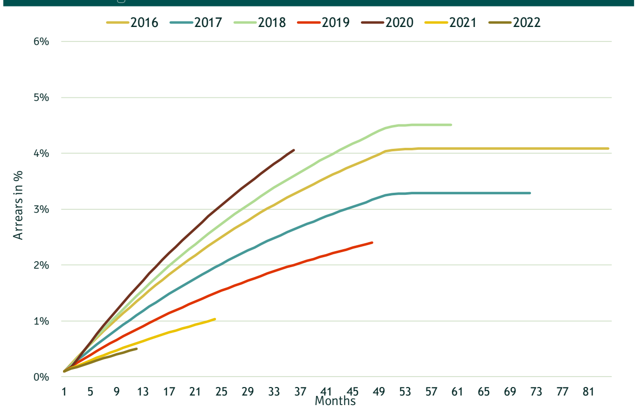
In some transactions, the residual value risk may be higher than the credit risk.

3.1.3 Default Rates and Multiples

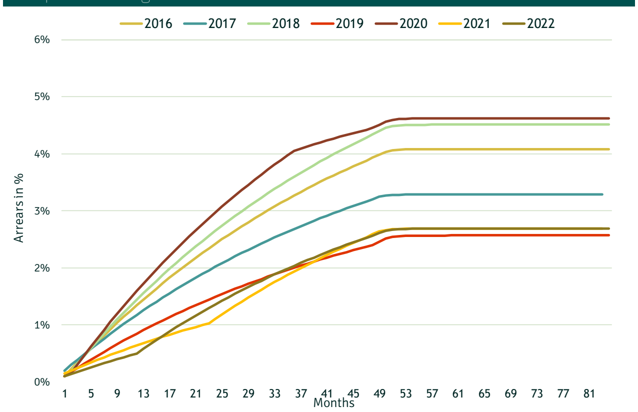
The base case expected default rate (gross loss) is derived from quantitative and qualitative factors.

As starting point, the Agency relies on an extrapolation technique on vintages for missing periods to project the future performance of the assets over their remaining life. However, EthiFinance believes that the chosen method has limitations when the data is highly volatile. Further, it does not take into account future macroeconomic conditions (GDP, interest rates and unemployment rate among others).

Historical Vintage Data



Extrapolated Vintage Data



Source: Ethifinance Ratings.

EthiFinance applies rating multipliers to stress the expected default rate of the base case and determine a given rating level. The following table is used as a general guidance and may be adjusted upwards or downwards to capture any risk factors that can impact on the transaction (origination/servicing quality, limited historical data, industry position of the originator, asset quality, concentration levels, macroeconomic conditions, revolving periods, revolving portfolios not mitigated by eligibility criteria and/or early amortization triggers...).

Transaction Rating		Rating Multiplier
AAA	AAA (sf)	4.5x - 5.5x
AA	AA (sf)	3.5x - 4.5x
A	A (sf)	2.5x - 3.5x
BBB	BBB (sf)	1.5x - 2.5x
BB	BB (sf)	1.25x - 1.5x
B	B (sf)	1.0x - 1.25x

Source: Ethifinance Ratings.

When the base case expected default rate is low, EthiFinance would tend to apply a higher multiple to the target rating. On the other hand, when it is high, EthiFinance would apply a lower multiple. In cases where the Agency is not able to derive the base case with a sufficient level of comfort, it may apply a rating cap or decline to rate the transaction.

3.1.4 Recovery Rates and Haircuts

The base case recovery rate (gross recoveries) is derived from the historical information observed and the qualitative factors. EthiFinance will apply different haircuts to the base case for each rating category to capture the impact of economic deterioration. The following table serves as an indicative guidance and EthiFinance may adjust the pre-determined range for the requested rating in a higher or lower percentage for each rating category.

Transaction Rating		Rating Haircut
AAA	AAA (sf)	45% - 55%
AA	AA (sf)	35% - 45%
A	A (sf)	25% - 35%
BBB	BBB (sf)	15% - 25%
BB	BB (sf)	5% - 15%
B	B (sf)	0% - 5%

Source: Ethifinance Ratings.

Some of the elements evaluated includes, among other factors, the asset type (secured or unsecured), the servicing process, capabilities and experience of the originator and servicer, jurisdiction, economic cycle, quality and quantity of historical data.

In cases where the information available doesn't represent the characteristics commented above, the recovery rates will generally be capped.

The base case established for recoveries and defaults assumptions will normally differ from the averages observed in the historical information supplied by the originator, because the base case scenario is projected to the transaction's lifetime.

3.2 Cashflow and Sensitivity

This section summarizes our assumptions for modelling consumer transactions. The analysis performed will focus on current portfolio information but also contemplate potential variations that may take place in its future composition, in the case of a revolving transaction. Adding new assets can result in portfolio credit deterioration if riskier assets are added and is expected to be partially mitigated by tighter eligibility criteria, concentration limits and early amortization triggers. In this case, the analysis assumes that the worst-case portfolio is created. In modelling the transaction, EthiFinance aims to capture the main structural features described in the transaction documentation.

Cash flows analysis reflects how principal and interest collections throughout the life of a transaction are allocated, under different stress scenarios according to the priority of payments established.

Once the securitized notes are rated, sensitivity analysis is performed to make sure that a small change in the main parameters does not result in a downgrade. EthiFinance expects that the default rate for high rating scenarios to be stable over time, whereas levels may be more sensitive in lower ratings scenarios.

For more detail consult the sections Qualitative Assessment, Quantitative Assessment and the section Review and Monitoring from the "General Structured Finance Methodology".

This document updates the previous version while preserving its original methodological criteria; therefore, all existing ratings remain unchanged. In this version, the format has been updated and includes a higher level of detail.