S&P Global
Ratings

Research

Criteria | Structured Finance | ABS:

Global Consumer ABS Methodology And Assumptions

March 31, 2022

OVERVIEW AND SCOPE

1. This criteria article describes S&P Global Ratings' global methodology and assumptions for analyzing the credit quality of pools of certain non-real estate, non-revolving consumer receivables, such as personal loans.
2. These criteria apply globally to asset-backed securities (ABS) backed by pools of non-real estate, non-revolving consumer loans and/or leases. For example, they apply to the analysis of pools of personal loans (whether unsecured or secured on personal property), recreational vehicle and marine loans, powersports equipment loans, and wireless device payment plan agreements (DPPA).
3. These criteria generally do not apply to consumer ABS areas such as auto loans, auto leases, credit cards, U.S. timeshare loans, U.S. student loans, and U.K. Income Contingent Repayment student loans where S&P Global Ratings has published jurisdiction- or asset-specific criteria addressing the analysis of the credit quality of the securitized consumer asset or where an approach has been established using "Principles of Credit Ratings," published Feb. 16, 2011. In such cases, the relevant jurisdiction- or asset-specific criteria articles are applicable.
4. However, these criteria apply to the analysis of receivables generated by borrowers drawing under a revolving line of credit, instead of our credit card criteria, if the receivable characteristics and risk drivers more closely resemble those of an unsecured consumer loan than those of a typical credit card account with a revolving line of credit.
5. In addition, although these criteria do not apply to real estate-based lending, they can be used to analyze certain consumer loans where real estate has been pledged as security for borrower payment obligations, when the loans have been underwritten according to consumer lending standards as opposed to being based on the value of the real estate security. In such a case, our analysis would not consider recovery cash flows stemming from the sale of the real estate collateral. Conversely, if the loan underwriting is based on an assessment of the value of the real estate security, and our recovery analysis considers the value of the real estate security, these criteria do not apply.

ANALYTICAL CONTACTS

Volker Laeger
Frankfurt
+ 49 693 399 9302
volker.laeger
@spglobal.com

John A Detweiler, CFA
New York
+ 1 (212) 438 7319
john.detweiler
@spglobal.com

Jerry Fang
Hong Kong
+ 852 2533 3518
jerry.fang
@spglobal.com

Leandro C Albuquerque
Sao Paulo
+ 1 (212) 438 9729
leandro.albuquerque
@spglobal.com

METHODOLOGY CONTACTS

Claire K Robert
Paris
+ 33 14 420 6681
claire.robert
@spglobal.com

Mauricio Tello
New York
+ 1 (212) 438 1206
mauricio.tello
@spglobal.com

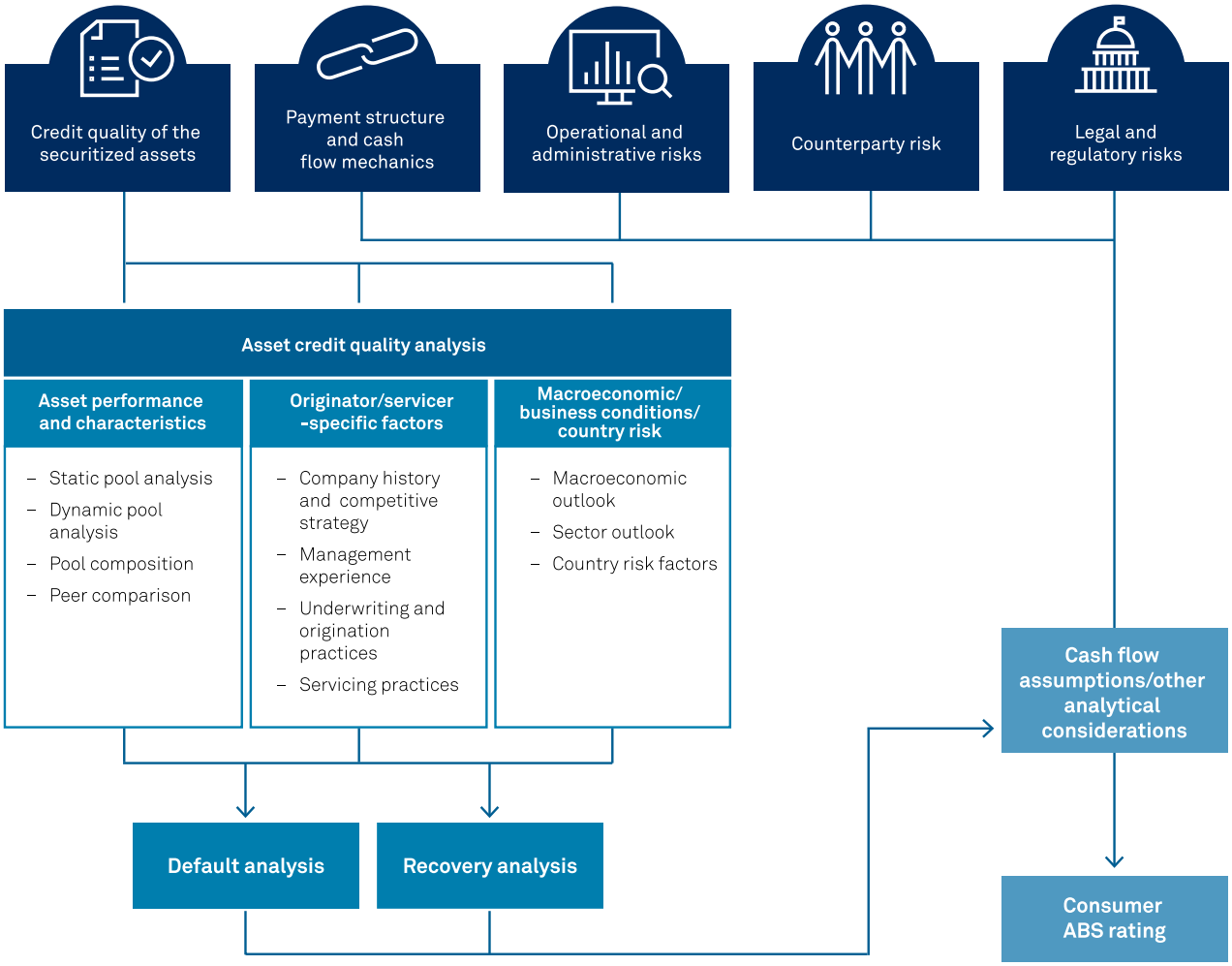
KEY PUBLICATION INFORMATION

- Effective date: These criteria are effective upon publication, except in jurisdictions that require local registration. In those jurisdictions, the criteria will be effective only after the local registration process is completed.
- This updated methodology follows our request for comment (RFC), titled "Request for Comment: Global Consumer ABS Methodology And Assumptions," published Nov. 30, 2021. For the changes between the RFC and the final criteria, see "RFC Process Summary: Global Consumer ABS Methodology And Assumptions," published March 31, 2022
- These criteria supersede the criteria articles listed in the Fully Superseded Criteria and Partly Superseded Criteria sections near the end of this article.

METHODOLOGY

6. This criteria article outlines S&P Global Ratings' global methodology and assumptions for rating ABS backed by pools of certain non-real estate, non-revolving consumer receivables, such as personal loans.
7. The chart below provides an overview of the criteria framework for rating global consumer ABS.

Overview Of Consumer ABS Framework



Source: S&P Global Ratings.

8. This article focuses mainly on how we analyze the credit quality of the securitized assets, as well as the payment structure and cash flow mechanics.

9. As a first step, we determine our base-case assumptions. Our analysis is informed by our review of the characteristics and historical performance of the pool of assets and by that of the originator and servicer of the receivables. Our base-case assumptions also incorporate our forward-looking view of the macroeconomic and sector conditions, as well as country risk, where relevant, and their impact on the expected performance of the securitized pool of receivables. Throughout this article, we use the terms "base case" and "expected case" interchangeably.

10. We then determine rating-specific assumptions by applying a level of stress to the base-case assumptions, reflective of our view of the impact on the securitized pool's performance of various degrees of macroeconomic stress commensurate with each rating level according to our ratings definitions. These reflect the likely increase of a borrower's propensity to default in a situation of stress, and, to the extent we assume any meaningful recovery on defaulted loans in our analysis, the likelihood that amounts able to be recovered may be impaired under worsening economic

conditions.

11. Finally, we incorporate these assumptions, along with other relevant analytical considerations, into our cash flow analysis based on the transaction's payment structure to assess the likelihood that the notes would receive timely interest and principal by the final maturity date under rating-specific stress scenarios. We do so in application of our cash flow criteria (see Related Criteria section near the end of this article), which should be read in conjunction with this article.

12. As outlined in our principles of credit ratings criteria, our analysis of consumer ABS transactions also incorporates the assessment of counterparty risk, operational risk, and legal and regulatory risk. These areas are addressed in separate criteria articles (see Related Criteria).

13. In each of these steps, our rating analysis for consumer ABS under these criteria incorporates an assessment of environmental, social, and governance (ESG) risks if we believe they have the potential to affect the securities' creditworthiness (see Related Criteria).

Asset Quality Analysis And Establishing The Base Case

14. We assess the credit quality of a pool of consumer receivables by analyzing quantitative and qualitative factors that inform our view of a pool's expected credit losses under different scenarios.

Performance history and data quality

15. The originator's and servicer's history and background are the starting points in our analysis. We also review management's experience, as well as the company's strategy, underwriting and credit approval and servicing processes, and target market, which could range from high-quality prime obligors to credit-impaired individuals. By understanding these factors, we gain a better perspective of the historical loss performance and how it may change in the future.

16. In determining our base-case default and recovery assumptions, we review various data sources to inform our analysis and our forward-looking view of the credit quality of the securitized portfolio. The nature, granularity, and extent of available information is relevant to our analysis.

17. Our confidence in estimating base-case lifetime losses on a pool of consumer loans generally rises as the quantity and quality of performance data we have increases and covers a full business cycle, including periods of stress. An issuer's ability to provide detailed performance data covering a sufficient time period, considering the tenor of the assets to be securitized, therefore affects our base-case and stress-scenario assumptions for the securitized pool and our ability to assign a rating. When the track record for the asset types in the securitization is short (for a typical consumer loan, less than three years), erratic, or exhibits high volatility, or if the level of data segmentation is limited, our expected case loss assumptions will account for this and generally be higher than otherwise, or the rating we assign may be constrained.

18. For the asset types considered under these criteria, we typically expect to receive separate gross default and recovery data. If only net loss data is available, however, we estimate a base-case gross default assumption by grossing up the net loss data. We do so based on a recovery rate that we determine using recovery data available from the issuer or, in some cases, from similar assets of the issuer's peers. In such instances, we generally use the upper end of the typical recovery range. Where peer data is not available in certain geographical markets, our analysis may be informed by similar assets in other regions.

19. In our credit analysis, we primarily consider and analyze the following factors, where applicable:

- Static pool data (originator-specific vintage pool data or securitized pool data);

- Pool composition;
- Dynamic portfolio performance data;
- Peer comparisons;
- Originator and servicer-specific factors;
- Recoveries on defaulted loans, if relevant;
- Underwriting, charge-off, and servicing policies;
- Seasoning;
- Macroeconomic factors and business conditions;
- Country risk factors, such as outlook, market conditions, and economic cycles affecting the country; and
- Transaction-specific considerations, such as revolving and prefunding structures (see Revolving And Prefunding Structures section later in this article).

Static pool analysis and pool composition

20. Static pool analysis involves tracking the performance of a discrete pool or vintage of receivables as the assets amortize. The vintage refers to the period in which the receivables were originated--often a quarter or a year. When the data is available, we generally analyze monthly or quarterly static pool performance based on company-provided origination data and the performance of past securitizations, to the extent the company has securitized similar assets. We use the information to develop base-case assumptions for the amount and timing of gross defaults and recoveries or net credit losses. We may use historical vintage curves to determine the rate at which the historical originations incur defaults and then use these curves to project defaults on the company's more recent, less-seasoned pools. For example, we measure defaults of past securitizations as the aggregate amount of defaults experienced during the pool's life, which can provide the cumulative gross default percentage when divided by the original pool balance. Similarly, we may evaluate historical loss-timing curves to determine the rate at which the historical originations incur losses and then use these curves to project losses on the company's more recent, less-seasoned pools. We may also use the pool factor data to develop our base-case default assumption for vintages that have not fully paid down.

21. The performance of past static pools is often a strong indicator of a new pool's performance, assuming comparability of pool characteristics, consistent underwriting, and a similar economic outlook. However, we may adjust the base-case default and recovery rates to the extent pool characteristics, underwriting, servicing, or economic conditions have changed. We may also do so when we believe the historical data is not reflective of certain risks. For example, if it is the originator's standard practice to replace or renew loans as they mature, or to grant loan modifications as the obligor's ability to pay deteriorates, the data would not reflect borrower default risk if renewals or modifications are not granted in the future.

22. To better understand the effects of changes in the pool composition, we generally also analyze pools on a segmented basis--by specific collateral characteristics, such as term of contract, or on a cross-sectional basis. That is, we typically request historical issuer-specific static pool performance data on pools that are stratified based on key credit quality indicators. Examples of the collateral characteristics on which we may examine performance due to changes in the collateral pool mix include, where applicable:

- Credit score,
- Key customer demographics,
- Term of receivable,
- Direct/indirect loans,
- Length of borrower relationship,
- Obligor concentration, and
- Geographic concentration.

23. We may also consider the interplay between different asset characteristics where we believe it is likely to have an exacerbated effect on default risk. For example, we may assess the effect on default rate of borrower age and/or credit score together with the term of the receivable.

24. For consumer receivables secured by collateral (e.g., a boat, recreational vehicle, powersports equipment, etc.), examples of collateral characteristics on which we examine performance may also include:

- Collateral type,
- Loan-to-value ratio (LTV),
- Loan term relative to expected useful life of asset,
- Whether it is new or used, and
- Age/mileage.

25. In some unsecured lending models, collateral is sometimes pledged for additional lender protection in case of borrower default and to enhance overall borrower incentive to pay. However, because lending in these cases is more in line with unsecured funds, the assets being pledged as security are typically not individually underwritten with detailed LTV standards. In such cases, we typically assign lower base-case recovery assumptions than in cases where the collateral value is formally assessed as part of the loan's underwriting, as is typical of secured lending.

Dynamic portfolio performance data

26. While we generally derive our base-case default and recovery expectations primarily from static pool data when such data is available, we may also analyze dynamic (or managed) portfolio data statistics. Dynamic portfolio performance data can be used as a stand-alone method of establishing base-case expectations or as a supplemental method when static pool data is available. Dynamic portfolio performance data can measure annual default, annual repossession, annual net losses, and delinquencies relative to the average or previous year-end portfolio balances. Unlike static pool gross default rates, which are generally the cumulative lifetime gross defaults as a percentage of the initial principal balance for a fixed pool of assets, dynamic data provide a measure of defaults on an annual basis.

27. There are certain limitations associated with dynamic portfolio performance data, as defaults occurring in a given period may relate to receivables originated in an earlier period such that expressing defaults as a percentage of the same period's origination may not be appropriate. This is especially true as it relates to a rapidly growing portfolio because of the increasing size of the default rate denominator or in the case of a significant change in the underlying collateral being originated. Therefore, we expect dynamic data losses to be restated to link defaults to their

relevant originations. During periods of modest growth, multiplying this growth-adjusted default level by the expected average life of the pool in question can yield a cumulative default level that is close to the proxy established using static default data.

28. The analysis of dynamic portfolio data is also useful in providing a better understanding of the trends in a company's performance, particularly with respect to delinquencies. Delinquencies are a leading indicator of future credit performance. Rising delinquencies could signal a worsening economy, a liberalization of underwriting standards, or simply that the company has grown faster than its infrastructure. In any event, rising delinquencies typically are a negative factor in our analysis. By the same token, declining delinquencies could be a positive factor. Because delinquencies can be seasonal, we typically compare this metric on a year-over-year basis. Dynamic portfolio data can also help discern default, net loss, and recovery rate trends for the aggregate portfolio.

Peer comparisons

29. To help maintain ratings comparability across issuers, asset types, and the consumer ABS sector, we may compare a transaction's pool with individual pools originated by others that we consider are in the originator's peer group.

30. Our comparison generally covers aspects like collateral characteristics, managed portfolio data, or our original expected and updated projected loss ranges for pools securitized by other originators with similar lending profiles or an aggregated index. While we generally place more emphasis on issuer-specific static pool performance for determining the base-case loss assumptions for the pool being analyzed, the peer comparisons allow us to assess the pool and base-case assumptions in light of other pools we've analyzed and achieve adequate rank-ordering of our assumptions for different transactions based on their relative risk profiles. The process can also be useful in identifying trends and market developments that may be less apparent when looking exclusively at a single portfolio or originator.

31. We typically measure pools to be securitized against those of relevant peers in terms of expected default rate, recoveries, credit support provided, and the particular risk characteristics of each transaction. Deviations in historical and expected performance or current loan and obligor characteristics relative to the peer group could lead to variations in pool-specific base-case and stress-case performance assumptions. For example, if the pool mix shifts away from the historical standard and includes a greater percentage of longer-term loans with lower credit grades, our analysis takes a forward-looking view and will likely project higher defaults on these loans.

32. In situations where the issuer-specific performance is significantly better than that of its peers, we examine the reasons for the difference. To the extent that we view the superior historical performance as unsustainable or believe the conditions contributing to it would not exist in a stressed environment, we adjust the base-case default and/or recovery rates accordingly.

Originator and servicer-specific factors

33. In determining the base-case assumptions, we also consider qualitative factors that we believe can affect pool performance and reporting of losses and could have an impact on our expectations:

- Company history, business model, and management experience;
- Competitive strategy and market position;
- Origination and underwriting practices and credit/risk scoring tools;

- Servicing and collection practices and charge-off policies;
- Collateral repossession policies, if applicable;
- Complexity of operations, including degree of decentralization;
- Reliance on third-party servicers; and
- Indirect lender relationships and monitoring tools.

34. Taken together, these factors, among others, may indicate the presence of operating risks, which may or may not be fully visible in historical performance data. One example is an originator practice in nonprime branch-based lending of offering loan renewals to existing amortizing loan customers. In most cases, renewed loans are re-underwritten and are used to repay existing loans while providing additional credit beyond the repaid amount. If the lender is unwilling or unable to renew loans in the future, pool default rates could increase compared to those observed historically. To reflect this risk, we typically assume a higher base-case default rate than the historical data may otherwise suggest and may also use data from other comparable peers to support our analysis.

35. Changes to an issuer's origination, underwriting, and collections policies and procedures may limit our ability to use historical performance to gauge future performance and may lead to more conservative estimates of base-case defaults and/or recoveries for the pool to be securitized.

36. Our analysis of operational risk may also result in a cap on the maximum rating we will assign to a transaction, as per our structured finance operational risk criteria (see Related Criteria).

Charge-off policies

37. We may adjust our base-case default rates considering an analysis of historical delinquencies and the issuer's charge-off policies. If, in our view, historical default rates potentially understate the credit risk profile of the pool based on an analysis of delinquency trends or the issuer's charge-off policies, we may adjust our base-case default assumptions. For example, if the issuer's charge-off policies are out of line with industry norms and loans are being charged off at a later stage of delinquency, base-case default rates may be increased to adjust for the more liberal charge-off policy. In some cases, a late-stage delinquency rate may be used as a proxy for default rates.

Seasoning

38. We may consider a pool's seasoning (i.e., the extent to which the assets have already amortized) when assessing asset credit quality. Meaningful seasoning may reduce the remaining losses as a percentage of the current pool balance to the extent the percentage of losses already incurred (e.g., 30% of total losses taken by month 12) exceeds the percentage by which the pool balance has amortized by that time (e.g., the pool balance has declined by 20%).

39. The impact of seasoning on asset credit quality is generally more meaningful when assets exhibit front-ended default timing behavior, which is often the case for consumer assets (they tend to default earlier rather than later in their lives).

40. We may account for this by adjusting downward our base-case default assumption. Typically, we account for a greater seasoning benefit in our assessment of base-case defaults where there is significant underlying data on pool amortization and loss rates on a static pool basis. The level of seasoning may also affect the shape of the loss-timing curve we assume in our rating-specific stress scenarios.

Macroeconomic factors and business conditions

41. In addition to the quantitative and qualitative data previously mentioned, we also consider additional forward-looking factors, such as the economic outlook and business conditions, when estimating base-case assumptions for defaults and recoveries. The economic cycle influences pool performance, as unemployment, inflation, and household income all affect an obligor's ability to make loan payments. For this reason, all else being equal, base-case default rates generally increase under more stressful economic conditions. When analyzing historical static pool performance, we expect not only to look for a cohort pool with similar characteristics, but also a cohort that underwent a similar level of economic stress as the one we expect the securitized pool to be subject to during its life.

Country risk

42. When establishing our expected-case default and recovery rates for a pool of consumer receivables, we will also consider country risk factors that could affect asset performance over time. These risks are further described in our country risk assessment methodology (see Related Criteria). They generally include:

- Economic risk: Economic risk, including heightened macroeconomic volatility, may increase the instability of the underlying assets' performance, which may affect repayment of the debt obligations. Relatively low per capita income in a given jurisdiction may also constrain consumer debt repayment;
- Institutional and governance effectiveness risk (including political risk): Weak institutional and governance effectiveness risk, including political risk, can cause a more severe impact for the business environment and consumer loan delinquencies;
- Financial system risk: Financial system risk is important because we tend to observe weak points in business and consumer credit cycles correlated with banking crises; and
- Payment culture and rule-of-law risk: Our assessment of payment culture and rule-of-law risk covers key country-specific aspects that can affect pool performance, including respect for the rule of law, property rights, contract rights, enforceability, corruption, and related event risk.

43. In addition to these country-risk aspects, for rating levels higher than the rating on the sovereign, we assess the potential effect on the pool performance of a sovereign default. This may lead ratings on an individual security to be constrained, as per our criteria regarding ratings above the sovereign (see Related Criteria).

Rating-Specific Stress Scenarios

44. Stress scenarios are meant to capture varying levels of deterioration in both economic and business conditions. Once the base-case default rate and, as appropriate, recovery rate, is determined considering our forward-looking view of the expected performance of a pool over the life of a securitization, we estimate the impact of various stress scenarios on the pool performance to develop rating-specific default and recovery rates commensurate with our ratings definitions (see Related Research).

Stress scenarios: default analysis

45. Rating-specific default rates are sized as a multiple of the base-case assumption. Table 1 shows the typical range of rating scenario-specific stressed defaults as a multiple of base-case defaults.

Table 1

Typical Stress Scenario Specific Default Rates

As a multiple of the expected case across asset types

Rating scenario*	Stressed default rate range (x)
AAA	2.50-7.00
AA	2.00-5.00
A	1.70-3.75
BBB	1.35-2.50
BB	1.25-2.00
B	1.00-1.50

*For notch-level rating-scenarios (the +/- rating modifiers), we interpolate the rating stress multiples selected from the ranges above.

46. The choice of a multiple generally reflects our view of the potential sensitivity of the base-case default rate to deteriorating macroeconomic conditions. We consider qualitative and quantitative factors when deciding a specific stress multiple within the range for a given rating level, including, for example:

- The level of base-case defaults, because the multiples for pools with low expected default or loss levels are generally higher relative to pools with high levels of expected defaults or losses;
- Originator/servicer experience and track record;
- Asset characteristics;
- Extent, timespan, and quality of data;
- Country risk;
- The performance history of a specific pool (especially when performing surveillance) and of relevant previous transactions by the same originator.

47. The range of rating-specific scenario default rates as a multiple of the base case in table 1 covers all asset types and regions. The typical range used for a specific asset type or within a specific region or jurisdiction may be narrower, reflecting the typical credit quality of the asset type and a narrower range of typical expected case default rates. For example, the 'AAA' specific assumed default rate as a multiple of the base case for unsecured consumer loans in Europe and North America is typically in the range of 3.5x to 5.0x.

48. In limited cases, we may use stressed default rates as a multiple of the base case that fall outside of the ranges presented in table 1. For example, we may use a lower multiple where the expected case default rate is very high such that some of the stressed default rates considered may approach or even exceed 100%. Also, we may increase multiples beyond the ranges laid out in table 1 where acute country risk factors are present that we believe have the potential to accelerate deterioration in loan defaults beyond what we typically expect in a stress scenario.

49. Base-case default rates are expected to increase if there is a significant economic deterioration

(and conversely, to decrease when the macroeconomic environment significantly improves). However, the level of sensitivity of rating-specific default assumptions to a change in our base-case assumptions is generally lower at higher rating levels than at lower ones. That is, some level of volatility around the base case can occur and, though it will generally result in changes to the stress assumptions for the 'B' category, it may not necessarily affect higher ratings. In a normal economic cycle, as the rating scenario moves up the rating scale from 'B' to 'AAA', the level of sensitivity to a change in the economic environment is generally expected to decline. For example, a hypothetical pool could have expected-case default rates that range 3%-5%, depending on economic conditions during a normal economic cycle. However, while this may lead to a change in the 'B' level default rate, the 'AAA' stress-scenario default rate for that hypothetical pool could be a constant 15% throughout a normal economic cycle. If the economic and market conditions deteriorate significantly beyond the normal ranges for cyclical fluctuations, we would expect even the 'AAA' default rates to increase.

50. In our surveillance reviews of outstanding securities, we adjust our expected-case and stressed-case defaults on outstanding securities based on actual performance and our outlook for the economy in general. Reflecting the availability of actual pool performance and shorter time to maturity, our stressed-case default assumption as a multiple of our revised expected-case level may be lower in surveillance than the one we applied at the time of issuance. We believe that our ability to project losses on outstanding pools improves as the assets season, given that we are taking actual performance and the current economic environment into account. For this reason, we may adjust down the multiples we use in our surveillance reviews.

Stress scenarios: recovery analysis

51. For consumer loans, including unsecured personal loans, we may consider recoveries in our analysis. The source for these recoveries may be obtained through obligor payments or, for secured loans, sale proceeds from assets provided as collateral for the loan and/or proceeds from the sale by the servicer of defaulted loans. Our recovery assumptions are net of any relevant legal or repossession fees, where applicable. Our analysis incorporates both jurisdiction-specific factors, such as a country's legal framework and creditor/borrower protections, and originator/transaction-specific features that we believe play a role, positive or negative, in the actions the servicer may take and the likelihood that significant recoveries may be achieved on defaulted loans.

52. We analyze historical recovery rates, if any, for the issuer and the market. In determining our recovery rate assumptions, we consider the issuer's collection and recovery strategies and track record, the stability of historical recovery rates, and factors that may affect the timing, amount, and availability of future recovery rates for the securitized pool. If the recovery rates are volatile, in our view, or the availability of recoveries is subject to significant credit, operational, or legal risks, we may discount historical recovery rates in developing the expected-case recovery assumption. For example, if an issuer relies extensively on the sale of charged-off accounts, we would seek to understand how stable those recovery proceeds are likely to be, particularly in higher stress scenarios, and reflect this in our assumptions.

53. Once we have determined the base-case recovery rate, we typically haircut it using a rating-dependent stress, to determine the rating-specific recovery assumptions. These haircuts are presented in table 2. They address the volatility in the recovery amounts we expect are likely to be received in periods of stress. For uncollateralized loans or loans for which the collateral value hasn't been formally assessed as part of the underwriting process, we expect that sources for recovery carry a high level of uncertainty as the macroeconomic conditions deteriorate. This may also be true of secured loans financing the purchase of discrete assets (for example, recreational

vehicles), for which the market may become illiquid in periods of stress when defaults occur, affecting recovery prospects.

Table 2

Haircuts Applied To Expected Case Recovery Assumptions

Rating scenario*	Typical haircut range (%)
AAA	35-55
AA	30-50
A	25-45
BBB	20-40
BB	15-35
B	10-30

*For notch-level rating scenarios (the +/- rating modifiers), we interpolate the rating-specific haircuts selected from the ranges above.

54. Within this range, the specific haircut we apply to a given pool of assets reflects our view of the degree of volatility in recovery amounts in a deteriorating macroeconomic environment and how dependent we believe recoveries are to favorable economic conditions. We consider both qualitative and quantitative factors in making this determination, including the following:

- The level of the base case recovery rate;
- Whether the loan is collateralized or not, and the potential source(s) of recovery;
- For unsecured loans, the incentive for the defaulted obligor to make payments on the defaulted loan in periods of stress;
- For secured loans, the loan underwriting and characteristics of the collateral;
- The originator/servicer experience and track record;
- The extent, timespan, and quality of data;
- Country risk;
- The performance history of a specific pool (especially when surveilling the ratings) and of relevant previous transactions by the same originator.

55. We may use haircuts lower than those contemplated in table 2 where a loan is secured on collateral for which the value has been formally assessed as part of the loan's underwriting and we believe we have sufficient information and data to assess the likely price behavior of this collateral type in a period of stress commensurate with the rating scenario considered.

56. Conversely, where we believe the source for historical recoveries observed on the assets is significantly more vulnerable to stressed economic conditions than we typically expect, we may apply a haircut that is higher than displayed in table 2. This may be the case, for example, where debt sales constitute a key source of recoveries, as the market may shrink in periods of stress. Another example may be where recovery proceeds are expected to come primarily from a collateral type whose value we believe would be highly volatile or uncertain in a downturn, even if the asset has been formally appraised as part of the loan underwriting.

57. Where the tiering of recovery assumptions by rating level isn't material to our rating analysis--for example, when the portfolio's overall recovery base-case assumption is close to zero--table 2 may not apply.

Additional Considerations

Dilution risk

58. While it is unusual in consumer lending, certain consumer receivable pools may be subject to dilution risk, which is a noncash adjustment to an asset's principal balance. This risk is present, for example, in wireless DPPAs. Dilution happens, for instance, when the consumer cancels a loan within a certain predetermined period after contract origination, or where the originator grants a customer a rebate or credit note--in both cases after the related receivable has already been assigned to the securitization. The consequence of dilutions is that the cash flow assumed to be available to the transaction under the terms of the affected receivables is diminished.

59. Where we determine that a transaction has exposure to this risk, we develop a base-case dilution assumption informed by a review of historical data that addresses both the level and timing of dilution, and we typically apply rating-specific multiples.

60. Table 3 provides the range of multiples we apply to cumulative base-case dilution rates in our analysis of DPPA ABS. Where we identify this risk in another type of asset portfolio, we may apply these as a starting point to determine applicable stresses in light of the relevant characteristics of that sector.

Table 3

Multiples Applied To Base-Case Dilution Assumptions

Rating scenario*	Multiple range (x)
AAA	3.00-5.00
AA	2.50-4.25
A	2.00-3.50
BBB	1.50-2.25
BB	1.25-1.75

*For notch-level rating scenarios (the +/- rating modifiers), we interpolate the rating-specific multiples selected from the ranges above.

Performance risk

61. Performance risks may be present in consumer ABS transactions when significant bundled services are included in the receivables' underlying contract. In such cases, we determine the potential impact on the collateral's performance if the service provider does not fulfill its contractual obligation under the services. We may increase our default and/or loss assumptions based on qualitative and quantitative analysis to account for performance risks that are not reflected in historical data. If the transaction exhibits performance risks that are substantial and not mitigated, this generally constrains the maximum rating we are able to assign (for more information, see the operational risk criteria and the wireless criteria in Related Criteria).

Revolving and prefunding structures

62. Transactions that have revolving structures allow for the reinvestment of principal collections for a specified period of time, followed by an amortization period where principal collections are passed through to pay down securities. Similarly, prefunding structures generally use a portion of the proceeds from the issuance of the securities to purchase assets within a specified time period.

63. We view revolving and prefunding structures as riskier than static transactions because their credit and cash flow profiles are more uncertain. Indeed, in a prefunding structure, assets will be added after closing, while in a revolving transaction, new assets may be reinvested in that may have different characteristics from those that were previously redeemed. As a result, the risks to which investors are exposed may rise due to an adverse change in pool composition (receivable or obligor characteristics) affecting the pool's credit profile or the pool's cash flow profile (for example, the pool's weighted average coupon).

64. The analysis of transactions with revolving or prefunding structures may differ in several ways from that undertaken for the typical amortizing transaction, which does not allow for asset purchases after closing.

65. In order to mitigate the increased risks in these structures, these transactions typically include eligibility criteria and portfolio parameter conditions for the purchase of new assets during the revolving or prefunding period. For example, the eligibility criteria may include the minimum credit score, interest rate, maximum tenor of the assets, and delinquency status. The purchase of new receivables may also be subject to conditions related to the overall portfolio characteristics or concentration limits.

66. These structures also typically feature amortization events (typically related to asset performance, seller insolvency, and servicer default) that, if triggered, will cause the revolving period to end and the amortization period to begin early.

67. In our analysis of these structures, we consider reinvestment parameters to determine the potential portfolio composition allowed under the transaction documents, both in terms of credit risk and cash flow profile, at the time it stops revolving and no further assets are added to the pool. We then apply our cash flow stresses from the time the transaction enters amortization. We consider relevant transaction-specific eligibility criteria, portfolio parameter conditions, payment allocation provisions, and amortization events, as well as historical asset performance and the term of the revolving period, in establishing rating-specific credit and cash flow assumptions for each performance variable. As a result, all else being equal, we typically assume higher losses on these structure types relative to static pools.

Cash Flow Analysis

68. As part of our rating analysis of consumer ABS, we review the transaction's payment structure and cash flows in application of our cash flow analysis criteria (see Related Criteria). Its primary purpose is to determine if a transaction has sufficient credit and liquidity enhancement to pay its obligations under rating-specific stress scenarios, and it may also be used to test a transaction's credit stability under a moderate economic stress scenario, in accordance with our ratings definitions.

69. The key variables we typically consider as part of our analysis of consumer ABS include:

- Default amounts and timing;
- Delinquencies, charge-off lags, or other liquidity stresses arising from payment delays;

- Recovery amount and timing;
- Voluntary prepayments, using the same assumptions at all rating levels; these can reflect different scenarios, for example high and low prepayment environments and/or differentiated assumptions by asset group; and
- If appropriate, interest rate and foreign currency stresses, using the applicable criteria (see Related Criteria).

70. In addition, where relevant, we may apply cash flow stresses to account for legal, operational, and counterparty risks that are not mitigated by the transaction structure.

71. Details on the application of the cash flow criteria to European consumer ABS are provided in the appendix.

72. Furthermore, we believe that not all risks can be addressed as part of the cash flow analysis and that some amount of event risk remains that cannot be addressed through modeling. For this reason, we generally expect consumer ABS transactions to benefit from a liquid source of funds (for example, a reserve or a liquidity line) covering senior transaction fees and interest on the rated notes to provide for timely payment thereof over one note interest payment period--or more if we identify specific risk factors in the transaction, such as liquidity risk arising from commingling or other disruption in collections. This applies unless we believe other relevant mitigating factors are present.

Minimum Credit Enhancement Levels

73. In our view, there are limits to the predictability of consumer loan performance. As a result, we establish minimum credit enhancement levels commensurate with each rating level. Our rating-specific minimum credit enhancement is 4% for 'AAA' ratings and 0.80% for 'B' ratings (see table 4). The 4% minimum credit enhancement for 'AAA' rated consumer loan ABS corresponds to 25x leverage. We believe that leverage above that level creates vulnerabilities that are inconsistent with the degree of creditworthiness associated with a 'AAA' rating. Moreover, the minimum credit enhancement levels for rating categories of 'A' and higher are expected not to be funded solely through "soft" credit enhancement (commonly called "excess spread"), and the minimum amount of "hard" credit enhancement supporting a 'AAA' rated consumer loan ABS transaction is 2.5%. Hard credit enhancement generally includes such sources as subordination, overcollateralization, letters of credit, reserve funds, and, in some cases, yield supplement overcollateralization.

Table 4

Minimum Credit Enhancement Levels

Rating scenario*	Minimum credit enhancement (%)	Minimum hard credit enhancement (%)
AAA	4.0	2.5
AA	3.2	2.0
A	2.4	1.5
BBB	1.6	N/A
BB	1.2	N/A
B	0.8	N/A

*For notch-level rating scenarios (the +/- rating modifiers), we would use interpolated assumptions. N/A--Not applicable.

74. In addition, if credit enhancement can decrease over time, we also expect its absolute amount to be subject to a floor to mitigate potential tail risk toward the latter part of the transaction.

APPENDIX

Cash Flow Assumptions For European Consumer ABS Transactions

Assumptions for timing of defaults

75. The loss curves applied in our cash flow analysis reflect consideration of the structure of the transaction.

76. For sequential pay structures, we typically assume gross losses are spread evenly in the first 18 to 36 months of the transaction, depending on the weighted average life of the securitized receivables pool. Applying losses at a faster rate than the historical average reduces the amount of stressed excess spread that can be used in the cash flow waterfall to pay amounts due on the rated securities.

77. For pro rata structures, we typically apply a slower loss curve, as credit enhancement can be amortized and may be unavailable if losses occur later in the transaction. In addition, for transactions where pro rata payment starts day one, or isn't first preceded by a meaningful sequential pay period, we may also delay the loss curve's start date.

Assumptions for recovery timing

78. Under our global cash flow criteria, we consider the amount of time it takes to realize recoveries ("recovery time lag"). After defaulting, an asset does not produce interest collections, thus reducing the amount of interest collections available to pay interest on outstanding notes. In addition, some transactions have net loss triggers that limit the release of credit enhancement from the transaction, and a delay in recognizing a net loss may delay the breach of any such trigger.

79. In our cash flow analysis of European consumer ABS, we generally assume that recoveries are received between six and 18 months after default. We may model recoveries distributed over time, with up to three distinct points in time. Where relevant, we choose these dates based on observed recovery behavior. Transaction-specific assumptions are based on an analysis of issuer-specific historical recovery data, as well as peer group comparisons. Servicer-specific collection and, where relevant, collateral repossession and sale policies and procedures, vary and have an impact on the recovery time lag.

80. Within Europe, country-specific considerations, such as the jurisdiction-specific legal framework, could also influence our recovery timing assumptions.

81. As with other cash flow assumptions, the level of granularity and time frames of the historical servicer-specific recovery rate data will affect the level of stress we apply to the timing of recoveries in our cash flow analysis. We may apply longer recovery lags in situations where historical recovery timing data is limited.

Delinquencies

82. We typically assume that delinquencies equal two-thirds of the stressed gross defaults applied in a given month, and assume that obligors become current on their obligations again after six months.

Prepayment rate assumptions

83. According to our global cash flow criteria, we consider that the prepayment of a receivable reduces the amount of future excess spread available to the securitization to cover losses. To stress the amount of excess spread available to absorb credit losses in European transactions where the obligors have the right to prepay without fully compensating for the loss of future interest collections, we generally run the high prepayment speed at an elevated level relative to historical experience. For most European ABS transactions, a high prepayment speed of 24% annualized constant prepayment rate (CPR) is applied in our cash flow analysis to stress the amount of excess spread available. Low prepayment speed scenarios are typically run with a 0.5% CPR. We may adjust the high CPR assumption up or down--for example if observed levels are at or above two-thirds of the benchmark level of 24% level (up), or if they have historically been significantly lower, or because obligors have no contractual right to prepay their obligations (down).

Weighted average interest rate compression and purchase above par stress assumptions

84. We generally consider that in European transactions where the obligors have the right to prepay without fully compensating for the loss of future interest collections, there is a risk that the weighted average interest rate on the pool of receivables would decline--also referred to as weighted average coupon (WAC) compression--if the higher interest rate contracts prepay more than lower interest rate contracts. This may happen if borrowers with higher contractual interest rates have more of an incentive to prepay their receivables. To address the risk that the WAC could decline over the life of the transaction, we generally assume in our cash flow analysis that voluntary prepayments are biased toward higher-yielding contracts. We typically reduce the WAC modeled in our cash flow analysis over the weighted average life of the pool. The WAC reduction is intended to approximate the effect of having 50% of the voluntary prepayments in our cash flow stress scenario applied to the highest-yielding receivables.

85. Where the portfolio is purchased using a net present value (NPV) mechanism based on a uniform discount rate and the obligors have the right to prepay without fully compensating for the loss of future interest collections, if a receivable has been purchased above par, excess spread or other forms of enhancement in the transaction would be needed to address the shortfall between the amount of principal received on a prepaid contract and the remaining purchase price (the NPV of the receivable using the uniform discount rate that is lower than the contract's interest rate). In addition, all else being equal, the recovery received on a defaulted contract that has a purchase price above the contractual principal balance is lower. In our cash flow analysis of transactions with an NPV mechanism, we generally assume half of the prepayments are concentrated in receivables with interest rates that are above the discount rate. This prepayment loss stress is then reduced to zero over the weighted average remaining term of the portfolio. In addition, we adjust the stress-case recovery rates to reflect situations where the portfolio is, on average, purchased above par.

Reinvestment rates

86. We typically assume index minus 250 basis points (bps), minus 200 bps, minus 150 bps, minus 100 bps, and minus 50 bps in 'AAA', 'AA', 'A', 'BBB' and 'BB' scenarios, respectively, and the index without a haircut at 'B' (all floored at zero).

CHANGES FROM PREVIOUS CRITERIA

87. Compared to the previous criteria for global consumer ABS, these criteria (for more information in relation to the criteria revision, see "Request For Comment: Global Consumer ABS Methodology And Assumptions," Nov. 30, 2021):

- Analyze gross defaults and potential recoveries separately;
- Include a range of default multiples, which applies globally;
- Introduce a common recovery framework that consists of an issuer-specific expected case recovery rate (where we assume recovery credit in our analysis) and different haircut levels for each rating level (tiered recoveries);
- Clarify our approach to dilution risk, particularly in relation to wireless DPPAs;
- Standardize and simplify our prepayment stress framework, where we use voluntary prepayment assumptions that are independent of the rating stress scenario in order to test a transaction's excess spread;
- Expand the use of minimum credit enhancement levels globally; and
- Clarify our consideration of event risk in our analysis by assessing the availability in consumer ABS transactions of minimum liquidity coverage and, for amortizing enhancement/pro rata structures, of credit enhancement floors to mitigate the tail risk associated with late defaults.

IMPACT ON OUTSTANDING RATINGS

88. We expect the criteria changes to have no impact on our outstanding ratings.

RELATED PUBLICATIONS

Fully superseded criteria

Together with "Global Auto ABS Methodology And Assumptions," published March 31, 2022, these criteria fully supersede:

- European Consumer Finance Criteria, March 10, 2000

Partly superseded criteria

This criteria article partly supersedes:

- "Global Methodology And Assumptions For Assessing The Credit Quality Of Securitized Consumer Receivables," Oct. 9, 2014, in so far as it relates to pools of assets in scope of this article. When these consumer ABS criteria and our auto ABS criteria become effective in all jurisdictions that require local registration, we plan to rename the partly superseded article "Global Credit Card ABS Methodology And Assumptions."

Related criteria

- Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- Global Framework For Payment Structure And Cash Flow Analysis Of Structured Finance Securities, Dec. 22, 2020
- Methodology To Derive Stressed Interest Rates In Structured Finance, Oct. 18, 2019
- U.S. Structured Finance Asset Isolation And Special-Purpose Entity Criteria, May 15, 2019
- Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019
- Incorporating Sovereign Risk In Rating Structured Finance Securities: Methodology And Assumptions, Jan. 30, 2019
- Global Framework For Assessing Operational Risks Specific To Wireless Device Payment Plan Agreement, Dec. 6, 2017
- Foreign Exchange Risk In Structured Finance – Methodology And Assumptions, April 21, 2017
- Asset Isolation And Special-Purpose Entity Methodology, March 29, 2017
- Global Framework For Assessing Operational Risk In Structured Finance Transactions, Oct. 9, 2014
- Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria For Assigning 'CCC+', 'CCC', 'CCC-' And 'CC' Ratings, Oct. 1, 2012
- Global Investment Criteria For Temporary Investments In Transaction Accounts, May 31, 2012
- Principles Of Credit Ratings, Feb. 16, 2011
- Methodology For Servicer Risk Assessment, May 28, 2009
- Structured Finance Criteria Introduced For Cayman Islands Special-Purpose Entities, July 18, 2002

Related research

- S&P Global Ratings Definitions, Nov. 10, 2021
- ESG Industry Report Card: Credit Card Asset-Backed Securities, March 31, 2021
- ESG Industry Report Card: Auto Asset-Backed Securities, March 31, 2021

This article is a criteria article. Criteria are the published analytic framework for determining credit ratings. Criteria include fundamental factors, analytical principles, methodologies, and/or key assumptions that we use in the ratings process to produce our credit ratings. Criteria, like our credit ratings, are forward-looking in nature. Criteria are intended to help users of our credit ratings understand how S&P Global Ratings analysts generally approach the analysis of issuers or issues in a given sector. Criteria include those material methodological elements identified by S&P Global Ratings as being relevant to credit analysis. However, S&P Global Ratings recognizes that there are many unique factors/facts and circumstances that may potentially apply to the analysis of a given issuer or issue. Accordingly, S&P Global Ratings' criteria are not designed to provide an exhaustive list of all factors applied in our rating analyses. Analysts exercise analytic judgement in the application of criteria through the rating committee process to arrive at rating determinations.

This report does not constitute a rating action.