

Trade Receivables Securitization Rating Criteria

Sector-Specific Criteria

Scope

This report outlines the analytical approach applied by Fitch Ratings when rating a transaction backed by a portfolio of short-term trade receivables or factoring receivables. The criteria apply to existing receivables, i.e. where an invoice has been issued for goods delivered or services provided by the seller to end customers.

The criteria are not appropriate for, and do not apply to, future receivables that rely on the seller performing services or producing the goods before the invoices are issued. In certain situations, such as the longer tenor of receivables, the application of additional criteria may be considered. It is applicable to new ratings and existing ratings; it is also applicable to ratings assigned in country-specific national scales.

The criteria in this report supplement are applied in conjunction with the related criteria. The key rating drivers below are all equally important to the analysis.

Key Rating Drivers

Portfolio Risk Analysis: Obligor default and dilution risk are the key assessments in Fitch's quantitative analysis. The risks are assessed regularly based on the most recent portfolio performance, due to the short-term nature and rapid payment profile of the receivables. Consequently, the credit enhancement (CE) or reserves are dynamic, rather than constant, and are adjusted during the transaction term to reflect the latest portfolio characteristics.

Fitch also analyzes the collateral characteristics of the trade receivables pool, including the payment terms of invoices, granularity and exposure to large obligors or a particular sector.

Origination and Servicing Risks: The short-term characteristics of trade receivables and the highly revolving nature of these transactions mean ratings assigned to trade receivable transactions are partly linked to the credit quality of the originator. The originator's business strategy, its credit and collection policies, and structural features designed to mitigate origination and servicing risks all contribute to the degree of linkage.

Structural Features: Fitch reviews transaction structural features that aim to safeguard asset quality and minimize the risk of a large deviation from the portfolio at closing. Key structural features include eligibility criteria, early amortization triggers, and carrying cost and yield reserves; these address the non-interest-bearing nature of trade receivables to cover senior transaction expenses and interest costs on the notes, among other things.

Table of Contents

Scope	1
Key Rating Drivers	1
Approach to Rating Trade	
Receivables Transactions	2
Surveillance	2
Portfolio Risk Analysis	2
Origination and Servicing	7
Structural Features	9
Counterparty Risk	13
Legal Structure and Opinions	13
Originator Review	13
Rating Assumption Sensitivity	14
Limitations	14
Criteria Variations	14
Appendix 1: Illustrative Example:	
Calculation of Dynamic Reserve	
at 'AAsf' Rating Level	15
Appendix 2: Data Sources	17
Appendix 3: Common Transaction	
Eligibility Criteria	18

This report updates and replaces "Trade Receivables Securitization Rating Criteria," dated July 6, 2022.

Related Criteria

[Structured Finance and Covered Bonds Counterparty Rating Criteria \(March 2023\)](#)
[Structured Finance and Covered Bonds Counterparty Rating Criteria: Derivative Addendum \(August 2022\)](#)
[Structured Finance and Covered Bonds Country Risk Rating Criteria \(July 2023\)](#)
[Global Structured Finance Rating Criteria \(March 2023\)](#)
[National Scale Rating Criteria \(December 2020\)](#)

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Approach to Rating Trade Receivables Transactions

Trade receivables have unique characteristics that set them apart from other asset classes. The characteristics of a trade receivables pool vary from company to company and are heavily influenced by the industry and business practice. A trade receivable is usually a short-term obligation with a tenor of 30-90 days after the invoice date. The short-term nature and rapid payment rate mean the transactions tend to have a long revolving period and the CE is reassessed and readjusted regularly on each portfolio purchase date. The constant assessment of the portfolio results in a dynamic mechanism where higher CE is needed as portfolio risk increases and lower credit enhancement is needed as the quality of the portfolio improves.

Fitch uses a formula-driven approach to evaluate the available dynamic CE in the transaction. This calculation is made with a Trade Receivables Model that replicates the dynamic reserve calculation explained in these criteria. Issuers constantly adjust the amount of CE in response to changes in collateral performance. Where reserves or overall CE do not adjust dynamically, Fitch assesses whether transactions provide features, such as early amortization triggers based on asset performance, to protect noteholders from continuously deteriorating asset performance in the revolving portfolio. In these cases, Fitch's rating approach assesses the protection provided by such structural features compared to the protection offered by the dynamic reserve mechanisms, not only for the most recent period analyzed but for the historical timeframe of information provided by the originator, if sufficiently long.

Fitch analyzes both portfolio risks and structural risks when rating trade receivables securitizations. Asset risks include the risks associated with default of obligors from whom payment is due and a non-payment of a claim unrelated to the creditworthiness of the obligors e.g. product return, wrongly billed invoices and discounts offered by the seller to bulk purchase customers. Structural risks inherent in trade receivable securitizations include the risk of mismatch in cash flow caused by maturity mismatch between the asset and the issued notes, and interest rate mismatch between the receivables and the issued notes. Trade receivables are typically non-interest bearing and part of the collections will be used to meet interest payment under the notes.

Surveillance

The surveillance for the rated structures will include a qualitative assessment of the portfolio, as well as the dynamic reserve calculation as outlined below. For transactions with fixed CE, besides the result of the dynamic reserve – which will be compared to the fixed CE provided by the structure – the volatility of the results during the surveilled period, and in certain cases even as far as pre-closing historical data are concerned, will also be crucial to determine the adequacy of the assigned ratings. Additionally, for both types of structures, Fitch will verify if any of the performance triggers were breached, and if the originators processes and systems have been performing adequately.

Portfolio Risk Analysis

When assessing a pool of trade receivables, Fitch undertakes an issuer-specific trend analysis to determine how the receivables have performed historically. Historical information on delinquent and written-off receivables provides an important insight into an originator's origination and servicing policy. The payment terms of trade receivables are dictated by sales invoices and are bilateral agreements between a company and its customers. The industry practice and business strategy of a particular originator tends to influence the characteristics of the receivables. For example, historical information may indicate whether or not the originator loosened credit terms to boost sales.

Typical forms of CE provided are overcollateralization (OC) and reserve accounts. Fitch's approach for assessing CE involves the application of stress factors to the performance data of the most recent receivables pool. Fitch will assess how the CE is determined by the transaction documents and compare this to Fitch's assessment of the dynamic CE. The dynamic reserve mechanism calculation, which serves as a benchmark for Fitch's analysis, is discussed below.

Default Analysis

In assessing the credit quality of the receivables pool, Fitch will review the ageing schedule of the receivables over the previous three to five years.

A technical default date is selected by the transaction parties and is defined in the transaction documents, after which a receivable is deemed not to have performed and to have become an ineligible asset; it cannot therefore provide OC. This may typically be set at 60 or 90 days past the receivable's original due date. The amount of defaulted receivables in any month is compared with the sales levels in the month when the receivables were generated. The monthly default ratio is then used to determine a loss ratio, which is the percentage of the eligible receivable pool that is expected to default. Fitch's dynamic assessment of the loss reserve to cover the expected loss on a portfolio is detailed below.

Loss Reserve = (Rating Multiplier x Loss Ratio x Loss Horizon Ratio) + Default Volatility Factor

Rating Multiplier

The rating multiplier is used to add a multiple of stress to the loss ratio, commensurate with the transaction's rating level (see the table below). It addresses the risk that actual performance of loss may be worse than the current pool's from the cutoff date to the next purchase date. The rating multipliers are lower than other asset classes under the same rating scenario.

Fitch believes the levels are appropriate because of the short-term nature of trade receivables, where a receivables pool is usually repaid in 30-60 days (therefore the length of time over which the transaction may suffer loss is shorter than in other asset classes); the concept of dynamic credit support, which enables the CE level to be adjusted regularly to reflect the monthly deviation in performance; and the absence in Fitch's analysis of credit to collections on receivables that come in after technical default or the cash collected on ineligible receivables held by the special-purpose vehicle (SPV), although these collections will benefit the transaction.

Rating Multipliers

AAAsf	2.50
AAsf	2.25
Asf	2.00
BBBsf	1.75
BBsf	1.35
Bsf	1.00

Source: Fitch Ratings

Country Risk Considerations: Fitch will apply higher stresses if assets are located in countries with increased risk of macroeconomic volatility or event risk. This is usually the case in countries subject to a rating cap due to sovereign risk and will usually result in stresses exceeding the multiple shown in the Rating Multipliers table above, up to two rating categories (three, for emerging markets).

For example, if the cap were set at 'BBBsf' in an emerging market country, Fitch would look at the 'AAAsf' row of the table above to rate the transaction 'BBBsf'. For more details on country risk considerations, see Fitch research on "[Structured Finance and Covered Bonds Country Risk Rating Criteria](#)," available on Fitch's web site at www.fitchratings.com.

National Scale Considerations: Similar to the treatment described in the previous paragraph, higher multiples will be used for National Scale Ratings. 'AAA(xxx)' National Scale Ratings are equivalent to the best credit in a particular country. As an example, to assign a 'AAAsf(xxx)' in a country where an 'AAA(xxx)' National Rating is currently aligned to a 'BBB-' international rating, a stress of up to three categories above the rating cap (as described in the previous paragraph) should be applied.

This would lead to 'AAAsf' rating stress, meaning that the 'AAAsf' row of the Rating Multipliers table above should be used. Multiples for other ratings scenarios will then be adjusted accordingly by interpolation assuming both scales will converge at 'Bsf' (where a rating

multiplier is defined at 1x). For more details on National Scale Ratings, see “[National Scale Rating Criteria](#).”

Notwithstanding the above, transactions rated on the national scale may involve originators (e.g. multinational companies) rated at or above the highest rating of the notes. In addition to reducing the probability of servicer substitutions, Fitch will deem an entity rated higher than the senior notes more likely to provide support (e.g. by repurchasing assets or providing more cash flows by waiving servicing fees), which may result in applying lower default multiples than listed in the Rating Multipliers table above.

Loss Ratio

Fitch measures the monthly default ratio by dividing the defaulted receivables plus the receivables written off before the default date by the total credit sales in the month in which the defaulted receivables were generated. This default ratio provides an indication of the expected loss that would occur on a month’s sales. For example, assuming a weighted average payment term of 30 days, and using receivables in the 91–120 days delinquency bucket as a default proxy defined in the transaction, the default ratio would equal all receivables 91–120 days past due, plus any identified writeoffs occurring before 91 days as a percentage of the sales that took place four months earlier.

Sales from an earlier month are used to account for the passage of time for term of the receivables when assessing the monthly default ratio rates.

Fitch then calculates the loss ratio on a portfolio as the highest rolling three-month average default ratio in the most recent 12 months. As a result, CE will quickly adjust for deteriorating portfolio performance but will require 12 months of good performance to remove the effect of worst-quarter performance.

Loss Horizon Ratio

The loss horizon is the time after which the receivable is ineligible for providing OC. The loss horizon is defined in the transaction documents. Fitch measures the loss horizon as the sum of the weighted average payment term and the number of days during which the receivables are delinquent but have not defaulted. For example, assuming a 30-day payment term and receivables that are considered defaulted when they fall into the 91–120 days delinquency bucket (i.e. receivables overdue after 91 days are considered ineligible assets) the loss horizon is about four months ($30 + 91 = 121$ days).

Fitch calculates the loss horizon ratio as the cumulative sales that occurred during the loss horizon divided by the end balance of the eligible and non-defaulted receivables.

The loss horizon ratio in conjunction with the loss ratio quantifies the amount of receivables likely to generate a loss that are embedded in the current portfolio.

The above calculation assumes updated pool performance is available to calculate the CE level on each receivables purchase date. If sales of receivables are made more frequently than the calculation of dynamic CE an additional month of sales will be added to the loss horizon to take into account the intra-month (assuming monthly calculation) performance. If the sales occur once a month and the CE is calculated based on the latest month’s performance, no adjustment will be made to increase the loss horizon.

Default Volatility Factor

This volatility factor aims to protect noteholders from spikes occurring after a period of relatively stable performance and to smooth out potential decreases of the loss reserve.

The default volatility factor is calculated as 12-month standard deviation of the monthly default ratio, multiplied by two. For new transactions, or transactions with less than 12 months post-closing data, Fitch will look to the performance data prior to closing to calculate the volatility factor. For example, for a deal that closed in January, there is only one data point at the end of the first month post-closing. The agency will therefore look to the data prior to closing (from February to December of the previous year) to ensure sufficient data points are available to calculate the volatility factor.

Notch-specific loss reserve is derived by linear interpolation between the stress multiples applicable to adjacent rating categories. As there are usually two notches between rating categories, the steps between notches are a third of the difference between the categories. The same applies for the 'AA+sf' level: it would be a third of the difference between 'AAsf' and 'AAAsf'. This assumes an implicit minus modifier for 'AAAsf' and implies a stronger more remote scenario for the highest rating.

Exposure to Large Obligor

Fitch analyzes the receivables pool to ascertain whether obligors are well diversified by geographic location and also, if relevant, by industry sector. A trade receivables pool should represent a simple homogeneous asset type, ideally involving a large number of obligors, each of which represents a small proportion of the pool. In practice, this is not true of many deals, although some utility transactions — the securitization of telephone or electricity bills, for example — have pools with a high number of obligors.

The dynamic loss reserve mechanism ensures a sufficient reserve to cover the expected loss from the portfolio but it cannot capture the default of large obligors. Fitch will examine the obligor limit permitted under the transaction and assess if the loss reserve is sufficient to cover large obligor exposure in certain rating scenarios.

The minimum loss reserve is the higher of: loss reserve calculation based on the portfolio characteristics; and the reserves needed to cover the default of large obligors.

For each rating scenario, Fitch assumes a certain number of obligors will default and the loss reserve should be sufficient to cover a default by a certain number of the largest obligors (see the table below). For example, the loss reserve for a 'AAAsf' rated transaction should be able to withstand default by one 'AAA' rated obligor, two 'AA' category obligors, three 'A' category obligors, four 'BBB' category obligors, six 'BB' category obligors, eight 'B' category obligors or 10 unrated obligors whichever the highest. The reserve is the highest result produced by multiplying the number of obligors expected to be covered — as shown the table below — and the transaction permitted concentration limit for the obligors, as specified in the transaction documents. If an obligor only has a Short-Term Rating, Fitch will take this into consideration based on correspondence to the Long-Term Rating.

In case there is more than one corresponding Long-Term Rating for a determined Short-Term Rating, the lower rating will be used.

Obligor Coverage Matrix

Highest transaction rating	AAAsf	AAsf	Asf	BBBsf	BBsf	Bsf
Obligor rating						
AAA	1	0	0	0	0	0
AA- to AA+	2	1	0	0	0	0
A- to A+	3	2	1	0	0	0
BBB- to BBB+	4	3	2	1	0	0
BB- to BB+	6	5	4	2	1	0
B+ to B-	8	6	5	4	2	1
Unrated	10	8	6	5	3	1

Source: Fitch Ratings

For notch-specific ratings, the obligor coverage test will interpolate the number of obligors to be covered between the adjacent rating categories. As there are usually two notches between rating categories, the steps between notches are calculated as a third of the difference between the categories, rounded up as to prevent partial coverage calculation. The same applies for the 'AA+sf' level: it would be a third of the difference between 'AAsf' and 'AAAsf'. This assumes an implicit minus modifier for 'AAAsf' and implies a stronger more remote scenario for the highest rating.

Country Risk Considerations: For unrated obligors, if transactions are rated in countries subject to a rating cap, Fitch will apply obligor coverage commensurate with two to three rating categories above the cap (up to 'AAAsf') at the rating cap level. This additional stress will not be applied at rating levels commensurate with the sovereign Issuer Default Rating (IDR) or below. For ratings between the rating cap and the sovereign IDR, the obligor concentration to be applied in will result from linear interpolation between these two levels. CCC-rated obligors will have the same treatment as unrated obligors.

As an example of the above, for an emerging market country rated 'BB' with a cap of 'BBB' (i.e. three notches above the sovereign) and to which we apply three categories of stress, coverage tests above the sovereign rating would be subject to stresses related to 'AAAsf' category (e.g. 10 largest unrated obligors for the 'BBBs'). At the country level rating category, coverage is not stressed, which means that a transaction rated 'BB' should still need to cover the three largest unrated obligors. Ratings assigned between the 'BB+' and the 'BBB-' rating categories, would have the coverage test for unrated obligors linearly interpolated between 10 and 3.

National Scale Considerations: When issuing a National Scale Rating to trade receivables transactions for rated obligors, the table above will be applied considering both obligor rating and highest transaction rating in National Scale.

In cases where a transaction is exposed to a more concentrated pool of rated obligors, and these obligors guarantee the payment of the receivables, Fitch will consider the credit quality of lowest rated obligor, not covered by CE, as the ultimate cap to the transaction rating.

Dilution Analysis

A dilution is any non-credit-related reduction in the face value of a receivable. Dilution usually occurs where a credit note is issued to an obligor to compensate for a wrongly billed receivable or for faulty goods, a discount offer is made to a customer for early payment of invoices or a volume discount is provided retrospectively to regular customers.

Fitch reviews historical monthly dilution levels. Fitch will stress the dilutions that may change over time relative to historical levels in order to assess whether the dilution reserve is sufficient to support the assigned rating. Fitch will not stress dilutions that will not change, such as volume discounts based on a percentage of sales. In this case, Fitch's analysis of the dilution reserve is based on accounting provisions for dilutions reported on the originator's financial statement. The dynamic calculation of dilution reserve is described below.

Dilution Reserve = ((Rating Multiplier x Dilution Ratio) + Dilution Volatility Factor) x Dilution Horizon Ratio

Rating Multiplier

The rating multipliers for dilution reserve are the same as for the loss ratio (see the table "Rating Multipliers" above). Their purpose is to add a multiple of stress commensurate with the transaction's rating level to the dilution reserve.

Dilution Ratio

Fitch calculates the dilution ratio as the 12-month average of the percentage of current dilutions over the sales in the month in which the diluted receivables were originated.

Dilution Horizon Ratio

The dilution horizon ratio is the cumulative sales in the dilution horizon divided by the balance of the eligible receivables. The dilution horizon is the weighted average time lag between the sale and the recognition of dilution. The dilution horizon ratio, in conjunction with the dilution ratio, quantifies the amount of receivables likely to be subject to dilution that are embedded in the current portfolio.

If sales of receivables are made more frequently than the calculation of dynamic CE, an additional month of sales will be added to the dilution horizon to take into account the intra-month (assuming monthly calculation) performance.

Dilution Volatility Factor

The dilution ratio is a simple 12-month average that gives an expected dilution for a portfolio over the preceding 12 months. The volatility factor added to the dilution acts as a cushion to

address deviations from the expected dilution ratio and to smooth out potential decreases in the dilution reserve.

The dilution volatility factor is a standard deviation over 12 months of the monthly dilution ratio, multiplied by two. For new transactions, or transactions with less than 12 months post-closing data, Fitch will look to the performance data prior to closing to calculate the volatility factor. For example, for a deal that closed in January, there is only one data point at the end of the first month post-closing; therefore, the agency will look to the data prior to closing (from February to December of the previous year) to ensure sufficient data points are available to calculate the volatility factor.

Notch-specific dilution reserve is derived by linear interpolation between the stress multiples applicable to adjacent rating categories in a similar manner applied for notch-specific calculations for loss reserve.

In situations in which an entity provides guarantee for payment of dilutions, Fitch may consider that as a mitigant factor and, then, do not size the Dilution Reserve. In that case, the rating of that entity will be a cap to the rating assigned to the notes, unless the transaction benefits from enough CE to withstand the stresses for dilution above the rating of the guarantor, in which case, the guarantor's rating will not cap the rating.

Credit Terms

Fitch reviews details of the credit/payment terms extended to customers. In particular, Fitch focuses on where the responsibility for amending credit terms resides and also if credit terms have changed over time. Changing credit terms may reflect a general market change, a change in the customer base, a change in underwriting policies, or a company that is aggressively seeking to protect or expand market share. Typically, transactions provide limits on the maximum payment term on the eligible invoices and on the weighted average payment term on the total receivable pool. This reduces the risk of a future decline in performance resulting from relaxation of underwriting policies (or any increased risk that results from a longer amortization period).

Origination and Servicing

The short-term nature of trade receivables places a much greater onus on the seller's ability to continue to generate eligible receivables of consistent credit quality during the revolving period to prevent the transaction from going into early amortization; segregate cash received in respect of sold receivables; and properly administer and service a changing pool of assets over the term transaction.

The credit quality and the servicing abilities of the originator, or the factoring company in the case of a factoring receivable securitization, are vital components of Fitch's analysis of any trade receivables or factoring receivables securitization. At the outset of any transaction, Fitch's Corporate Finance Group or Financial Institution Group will be consulted on the credit rating of the originator or the factoring company. If the company is unrated, a private rating or a credit opinion, in the case of a National Scale Rating, will be completed for term transactions. In both cases, the analysis will be maintained throughout the transaction.

When rating a securitization of factoring receivables, if the factoring company is a subsidiary of a financial institution with a long track record and strong servicing capability, then the factoring company itself does not need to be rated (but Fitch will look at the parent rating).

Impact of Originator or Factoring Company Rating

Fitch considers a number of factors, including originator or factoring company characteristics and structural features, when determining if the rating will be constrained by the credit quality of the originator or the factoring company. Unless risks associated with the originator are mitigated, Fitch will only rate transactions 'AAAs' when they are originated from an investment-grade ('BBB-' and above) originator or factoring company, or have the appropriate credit insurance in place. For entities rated in the 'BB' category and below, the maximum notching uplift will be three rating categories above the IDR of the originator or factoring company, so the maximum achievable rating would be the 'AA' category. For National Scale ratings, the maximum notching uplift of three categories will be applied above the originator's National scale ratings.

In general terms, excessive originator or factoring company risk attributes without structural mitigants will not allow transactions to achieve the maximum rating differential and will be more closely linked to the originator's rating (no more than one category). Transactions which have a combination of lower risk attributes associated with the originator, or factoring company, and/or structural mitigants, can achieve the maximum rating uplift (three rating categories). Ratings will not be constrained by the originator's rating exclusively in the limited cases where it can be demonstrated that the originator does not have a relevant role in servicing existing receivables, commingling risk is mitigated and there is no credit exposure to the originator.

Originator and factoring company risk attributes considered in Fitch's analysis are the following: track record; stability of the business line; reputation; competitive position; regulated entities which come with additional oversight; and adequacy of the servicing platform.

Fitch then reviews the following structural features to assess if they mitigate potential operational and servicing risks: transaction triggers; view on servicer continuity risk; analysis of payment mechanisms in place and whether obligors pay directly into the transaction account; backup servicer plan (warm or hot); master servicers; and third-party verification regarding eligibility compliance (see *Structural Features* on the following page). Fitch may consider other factors that are relevant to a particular transaction, and these will be disclosed in transaction-specific research.

Fitch may also limit the rating further, or may choose not to rate a transaction, when it is exposed to one or more of the following characteristics:

- inadequate or insufficient data provided by issuers;
- idiosyncratic risk associated with exposure to obligor or industry concentration;
- inadequate receivables management systems, in terms of comprehensiveness, accuracy and transferability of data;
- excessive counterparty and/or commingling risks;
- weak financial and operational profiles of the originator and servicer;
- receivables of a nature that make it likely that the default of the originator would materially change the payment pattern of the obligors, for example service contracts that have not been fully performed and allow for non-payment upon discontinuation of the service; and
- insufficient or questionable information on key counterparties (including originator or factoring company) financial, legal, and business background and practices.

For more information on rating caps, see *Global Structured Finance Rating Criteria*.

Originator's Representation and Warranties

Fitch will evaluate the originator's ability to continue to service securitized receivables using consistent credit and collection policies. If Fitch does not believe this is possible, it may decline to rate the transaction, or implement a rating cap. The originator will generally provide representations and warranties on origination and servicing policies, stating that they will remain similar to those at closing and that it will only offer receivables that meet the pre-defined eligibility criteria to the securitization vehicle.

It is important to the stability of the rating that the credit profile of the securitized portfolio does not change dramatically from that assessed at closing. A dynamic CE calculation would typically address small fluctuations and/or gradual declines in portfolio performance, but it may not immediately capture dramatic declines. A strong set of representations and warranties and eligibility criteria minimize the risk of sudden portfolio deterioration. A breach of the representations and warranties would be expected to lead to early amortization of the transaction. Fitch views positively regular data audits of compliance with eligibility criteria by recognized third parties that would support of ratings above those of the originators.

Servicing

Fitch analyzes the ability of the transaction to survive an insolvency of the originator/servicer and the extent of cash flow disruption following the originator/servicer's default.

The transaction documents should clearly identify the sequence of events that may result in a servicer termination event and its consequences; this will include analyzing the notification to the obligors, the redirection of cash flows and the appointment of a replacement servicer.

If the originator is low rated, a committed back-up servicer should be nominated at closing to ensure orderly rapid and smooth transition of the servicing function when necessary.

The provision of a suitably experienced back-up servicer mitigates the risk of an interruption to the collection process following the insolvency of the originator. Robust data systems are needed to support an easy transfer of the collection system to the back-up servicer.

Structural Features

Fitch reviews certain key structural issues that are particularly relevant to trade receivables. Structural components are designed specifically to protect the noteholders from deterioration in either the asset quality or the ongoing servicing capabilities of the originator. The key structural elements are the following.

Eligibility Criteria

Eligibility criteria are agreed by transaction parties at the outset of the transaction. Their purpose is to define the boundary for securitized receivables and prevent less desirable receivables being sold to the purchaser. The seller confirms at the point of sale that all assets being sold into the transaction comply with the established criteria. Typically, an eligible receivable will have the common features set out in Common Transaction Eligibility Criteria in Appendix 3. This list is an indication only and created from transactions rated by Fitch. It is not exhaustive and Fitch will expect eligibility criteria in any particular transaction to reflect other particular aspects of the transaction or the industry in which the seller operates.

Transactions typically provide that a breach of the eligibility criteria can be remedied by the originator substituting eligible receivables in the place of ineligible ones, or repurchasing them for cash. A failure to do so would typically result in an early amortization. For trade receivables, the pool is screened to identify ineligible receivables; receivables that have become ineligible, after being sold to the purchaser, are removed from the eligible pool. There is a risk that, if the originator is insolvent when the transaction starts to amortize, some ineligible receivables may not be replaced or repurchased. In the amortization phase, collections arising from ineligible receivables shall remain in the transaction and are used to meet payment on the notes.

Regular audits of compliance with eligibility criteria by a third party may help to minimize this risk. Although audits are retrospective, they can provide the additional reassurance of an external check.

Early Amortization and Stop-Purchase Triggers

All early amortization triggers are ultimately designed to protect noteholders against a decline in the quality of the pool of receivables. Such a decline may signal a fundamental problem with the seller's origination and servicing abilities, or a market shift that may not be fully covered by the dynamic reserve mechanism. Where dynamic CE is calculated based on the most recent historical performance of receivables as of the purchase date, triggers help minimize the risk of a significant deterioration in the asset performance that cannot immediately be picked up by dynamic calculation of the CE.

Fitch will not assign a rating to a transaction without triggers. Typical triggers relate to the nature of the asset pool and usually set maximum limits as to:

- defaults;
- dilutions;
- delinquencies;
- average payment/credit terms;
- days of sales outstanding (i.e. the average amount of time it takes for the pool to revolve); and
- cash not invested in receivables (i.e. limiting the negative carry).

The stop-purchase triggers are also typically set in transactions to mitigate a decline in the originator's origination or servicing ability that has not yet been picked up by the asset triggers. Such triggers invariably include a stop-purchase event following the start of insolvency proceedings against the originator. For rated originators, a rating downgrade below a certain level may constitute a stop-purchase event. For low-rated originators, an "early warning" trigger on the solvency of the originator may be included, such as cross-default under bank facilities or a decline in key financial ratios below certain levels.

Reserve for Senior Expenses and Interest Costs

The underlying collateral of trade receivable transactions are not interest-bearing assets, and therefore in all cases need to include reserves to cover senior costs and interest costs during the amortization period.

Some companies may charge penalty interest for late payment. In Fitch's analysis, no credit is given to the penalty interest (although the issuer has the benefit of it if paid). This is because receipt of the penalty interest is less certain and it can be waived by the originator during the negotiation with its customers.

Fitch assesses the adequacy of the reserve to cover senior expenses and interest cost during a stressed amortization period. The stressed amortization period is based on current average days of sales outstanding (DSO) multiplied by the rating stress factor as shown in the table Rating Multipliers above. All expenses senior to debt service on the notes are included in the calculation, including interest payable on the fully drawn amount of the liquidity facility in a term deal, and any commitment fees.

Carrying Cost Reserve = Senior Costs Reserve + Yield Reserve

$$\text{Senior Costs Reserve} = (A/360) \times B \times C$$

A = Annual senior expenses: X + Y

X = Higher of current servicer or back-up servicer fees

Y = other senior expenses

B = Days of sales outstanding

C = Rating multiplier commensurate with the rating of a transaction (see the table "Rating Multipliers" above)

Fitch will consider the servicing fee – for the purposes of calculating the Dynamic Carrying Cost Reserve - based on the higher of the current servicing fee or the replacement servicer's fee. Upon the termination of the original servicing agreement, the transaction will typically enter into early amortization and no new receivables will be purchased. Using a higher servicing cost in the reserve calculation reflects the potential for increasing costs upon the hiring of a replacement servicer.

If the back-up servicer agreement is not in place upon transaction closing, Fitch may adjust the servicing fee assumption in its analysis to reflect the potential replacement of the servicer at a higher cost.

The DSO measures the turnover rate of the receivables pool. Assuming a monthly reporting period, the DSO is calculated as the total amount of receivables divided by the sales generated in that month, multiplied by 30 days.

The senior cost reserve result will equal the formula above when transaction expenses are not embedded in the portfolio purchase price. When they are, no explicit senior cost reserve may be necessary. In particular, the result of the senior cost reserve will be considered as zero if the stress component for the assigned rating (item 'c' in the previous formula) is also included in the calculation of the purchase price. Otherwise, the result of the reserve will equal the stress component above the annual expenses weighted by DSO (i.e. if the relevant multiplier is for example 2.5 but the purchase price includes the unstressed calculation above, the additional reserve will need to feature a multiplier of $2.5 - 1 = 1.5$).

$$\text{Yield Reserve} = (A/360) \times B \times C$$

A = Annual coupon: X + Y + Z

X = Relevant reference interest rate

Y = Margin

Z = Trade receivable interest rate stress

B = Days of sales outstanding

C = Rating multiplier commensurate with the rating of a transaction (see the table “Rating Multipliers” above).

When assessing the yield reserve, Fitch takes into account the following factors for applying the relevant interest rate stress: the length of the stressed amortization period, which is measured by multiplying the turnover rate of the receivable pool and the relevant rating multiplier at the expected rating of the notes; and potential increase in interest rate during the amortization period (i.e. the risk that the index that determines the cost of financing may reset at a rate higher than the initial rate).

In cases where the coupon rate is embedded in the purchase price of the receivables, the ‘a’ component shown in the formula above will only be comprised of the interest rate stress (‘z’).

Trade Receivable Interest Rate Stress

Fitch studied the historical movements of representative reference rates for the currencies listed below. Fitch observed the interest rate increase over six months and 12 months and considered macroeconomic explanations for the rate movement to place the time series in a historical context. Fitch determined the ‘AAAsf’ stress to correspond to the highest observed increase and the ‘B’ stress to be reflect the average of the observed increase in interest rate.

The tables below summarize the stress applicable to each rating scenario. This stress depends on the stressed amortization period of the pool. The stressed interest rate is determined via a relative factor (i.e. a percentage to be applied to the prevailing spot rate) subject to a floor expressed as an absolute percentage difference. The relative stress factor is designed to reflect a stress in mid- to high-interest-rate environments, while the floor is meant to address a potential stress starting in a low-interest-rate environment.

For a portfolio with a six-month stressed DSO, the stressed interest rate in a ‘AAAsf’ scenario is equal to the spot U.S. dollar Libor plus the higher of: 45% times the spot U.S. dollar Libor; or the floor of 3.10%.

For a portfolio of 12 months DSO, the stressed interest rate in a ‘AAAsf’ scenario is equal to spot U.S. dollar Libor plus the higher of 75% times the spot U.S. dollar one-month (1mo) Libor or the floor of 4.50%.

Interest Rate Stress – U.S. Dollar 1mo Libor^a

Note rating (%)	Stressed DSO = or <6 months		Stressed DSO >6 months and < or = 12 months	
	Floor	Relative stress	Floor	Relative stress
AAAsf	3.10	45	4.50	75
AAsf	2.68	40	3.84	65
Asf	2.26	35	3.18	55
BBBsf	1.84	25	2.52	45
BBsf	1.42	20	1.86	35
Bsf	1.00	15	1.20	25

^aThe stresses are also applicable to IBOR successor rates with (near-) risk-free-rate characteristics, such as SOFR and its forward- and backward-looking term variants.
Source: Fitch Ratings

Interest Rate Stress – 1mo Euribor

Note rating (%)	Stressed DSO = or <6 months		Stressed DSO >6 months and < or = 12 months	
	Floor	Relative stress	Floor	Relative stress
AAAsf	2.50	100	3.70	120
AAsf	2.20	95	3.20	115
Asf	2.00	90	2.70	110
BBBsf	1.70	90	2.20	100
BBsf	1.50	85	1.70	95
Bsf	1.2	80	1.2	90

Source: Fitch Ratings

Interest Rate Stress – SONIA

Note rating (%)	Stressed DSO = or <6 months		Stressed DSO >6 months and < or = 12 months	
	Floor	Relative stress	Floor	Relative stress
AAAsf	2.3	50	3.5	65
AAsf	2.3	45	3.2	55
Asf	2.3	40	2.9	50
BBBsf	2.3	30	2.6	45
BBsf	2.3	25	2.3	35
Bsf	2.3	20	2.0	25

Source: Fitch Ratings

Interest Rate Stress – Brazil CDI

Note rating (%)	Stressed DSO = or <6 months		Stressed DSO >6 months and < or = 12 months	
	Floor	Relative stress	Floor	Relative stress
AAAsf	9.0	60	10.0	70
AAsf	7.6	55	9.4	65
Asf	6.2	45	8.8	60
BBBsf	4.8	40	8.2	55
BBsf	3.4	30	7.6	45
Bsf	2.0	25	7.0	40

Source: Fitch Ratings

Interest Rate Stress – Mexico TIIE

Note rating (%)	Stressed DSO = or <6 months		Stressed DSO >6 months and < or = 12 months	
	Floor	Relative stress	Floor	Relative stress
AAAsf	4.0	60	5.1	80
AAsf	3.4	55	4.3	75
Asf	2.8	45	3.5	65
BBBsf	2.2	40	2.6	60
BBsf	1.6	30	1.8	50
Bsf	1.0	25	1.0	45

Source: Fitch Ratings

Notch-specific carrying cost reserve is derived by linear interpolation between the rating multiplier and interest stress applicable to adjacent rating categories in a similar manner applied for notch-specific calculations for loss reserve.

Negative Carry Risk

As a trade receivable's pool varies in size throughout the year, it is important for the structure to take into account whether sufficient levels of eligible receivables will be available during the revolving period in which collected cash may be invested in the structure to address the effects of negative carry. If insufficient eligible receivables are sold to the purchaser over a prolonged period, the transaction will automatically enter into early amortization.

Liquidity Risk

Liquidity shortfalls may arise in a term transaction in the event of enforcement on obligors that have not paid their receivables. The risk generally arises where the transaction has entered early amortization because the originator is insolvent and a back-up servicer has stepped into the servicing role. In such circumstances, obligors may take longer to pay — or require more prompting to pay — than when the originator was servicing the portfolio. Some may use the originator's insolvency as an excuse to try to avoid payment for as long as possible, or until threatened with legal action.

Fitch will assess whether there is sufficient liquidity for all senior costs and interest on the notes to be paid during this process. Generally, liquidity risk is mitigated via a liquidity line from an appropriately rated bank. Fitch expects the liquidity facility provider to have a minimum rating consistent with Fitch's *Structured Finance and Covered Bonds Counterparty Rating Criteria* to support the note rating.

The level of liquidity will vary depending on the amortization period under the relevant rating scenario. The sizing of the liquidity facility will vary from transaction to transaction and be influenced by the insolvency regime of the relevant jurisdiction.

Where a liquidity facility is present in the structure, Fitch will assess whether the carrying cost reserve is sized to repay the liquidity facility. Senior costs included in the calculation of the liquidity facility and senior costs reserve will normally include interest payable on the fully drawn amount of the liquidity facility, and any commitment fees.

Counterparty Risk

Fitch's ratings of trade receivables transactions include an element of reliance on the financial strength of certain counterparties, through credit dependency in the form of payment obligations. These parties can include the collection account banks, derivative counterparties or providers of liquidity facilities.

To address the issue of counterparty risk, transaction documents typically include structural mechanics that aim to reduce the reliance on specific counterparties. Counterparty risk is evaluated based on the type of exposure as well as the counterparty ratings. Fitch applies the criteria described in its report "Structured Finance and Covered Bonds Counterparty Rating Criteria."

Legal Structure and Opinions

The SPV formation documents, the documents relating to a particular transaction, and associated legal opinions indicate the extent of the separation of the assets from insolvency risk of the seller and the robustness of the structure of a particular transaction and, consequently, the extent of de-linkage of the assets from the transferor and the SPV from affiliates. Legal review, including legal structure, opinions and transaction documents will be assessed by Fitch as determined in its "Global Structured Finance Rating Criteria."

Originator Review

Fitch conducts an originator review of both the seller/servicer and the historical performance of the asset pool. During the review, Fitch meets management and evaluates the main aspects of the company's business operations that could affect the performance of the transaction. In the case of factoring companies, Fitch will also review the factoring agreements which dictate the eligibility requirements and provide Fitch with a further insight into the underwriting standards of the factoring companies. As discussed above, the nature of the originator's business and its credit quality have a large impact on the rating of any trade receivables transaction.

Among the factors considered are the servicer's systems capabilities, capacity and flexibility, the company's management and reporting structure, the controls in place to minimize errors and fraud, and disaster recovery or contingency plans. A sophisticated accounts receivables system is particularly important for trade receivables transactions because of the rapid turnover of the receivables and frequent reporting requirements.

Fitch conducts periodic originator reviews during the life of the term transaction. The purpose of these reviews is to identify whether there are significant changes in the business of the originator/servicer that may cause doubts about the future performance of the transaction.

Rating Assumption Sensitivity

Because of the dynamic CE and no fixed expectation on default from day one, traditional structured finance rating sensitivity to stress default is not applicable. As discussed within this report, CE is provided in the form of OC. During the revolving period, a new discount rate is calculated on the purchase date, based on the latest parameters and performance of the receivables pool. If no new purchases are made, the transaction will go into early amortization. This mechanism significantly mitigates any rating sensitivity to a gradual deterioration in portfolio performance.

The transactions' ratings are exposed to sudden deviations in the receivable pool's quality, which could lead to the CE level being insufficient. However, this is typically mitigated through the asset eligibility criteria and strong sets of representations and warranties.

Similarly, a rating action on the originator can affect the ratings of the notes. Key factors include: the originator downgrade being related to, or caused by, payment behavior by its customers; Fitch believing that the transaction structure no longer provides sufficient protection against asset performance deterioration; Fitch believing that any back-up servicer will no longer be able to continue to service the pool; or a significant percentage increase in the contribution of trade receivables securitizations to the originator's overall funding and receivable accounts.

Limitations

Ratings, including Rating Watches and Outlooks assigned by Fitch, are subject to the limitations specified in Fitch's Ratings Definitions and are available at <http://www.fitchratings.com/site/definitions>.

Criteria Variations

Fitch's criteria are designed to be used in conjunction with experienced analytical judgment exercised through a committee process. The combination of transparent criteria, analytical judgment applied on a transaction-by-transaction or issuer-by-issuer basis, and full disclosure via rating commentary strengthens Fitch's rating process while assisting market participants in understanding the analysis behind our ratings.

A rating committee may adjust the application of these criteria to reflect the risks of a specific transaction or entity. Such adjustments are called variations. All variations will be disclosed in the respective rating action commentaries, including their impact on the rating where appropriate.

A variation can be approved by a ratings committee where the risk, feature, or other factor relevant to the assignment of a rating and the methodology applied to it are both included within the scope of the criteria, but where the analysis described in the criteria requires modification to address factors specific to the particular transaction or entity.

Appendix 1: Illustrative Example: Calculation of Dynamic Reserve at 'AAsf' Rating Level

Full details of the monthly dynamic reserve calculations are illustrated in an example below. The level of reserve calculated at closing represents the discount rate to the receivable at closing. The discount rate on subsequent purchase dates will be adjusted to reflect the dynamic CE for the given rating level, calculated based on the latest historical performance of the receivables.

If purchases take place more frequently than monthly and the CE is reassessed at month-end, the discount rate in respect of the receivables to be purchased on each purchase date will be based on the most recent month-end dynamic calculation.

Total Dynamic Reserve as of month 12 = Dynamic Loss reserve + Dynamic Dilution Reserve + Dynamic Carrying Cost Reserve

Total Dynamic Reserve as of month 12 = 4.73% + 7.42% + 3.713% = 15.863%

Dynamic Loss Reserve

	A	(i)	(ii)	B	(iii)	(iv)	C	(v)	D	
		Default Proxy/ Sales 4 Months Prior (%)	3-Month Rolling Average of (i) (%)	Default Ratio 12-Month Peak of (ii) (%)	4 Months' Cumulative Sales(\$)	Eligible Receivable Balance (\$)	Loss Horizon Ratio (iii)/(iv)	12-Month Sample Standard Deviation (%)	Default Volatility Factor (2.00 x [v]) (%)	Loss Reserve ([AxBxC]+D) (%)
Month	Rating Multiplier									
1	2.25	0.32	0.44	0.56	319,600	140,700	2.27	0.13	0.26	3.12
2	2.25	0.60	0.49	0.56	332,000	150,750	2.20	0.14	0.28	3.05
3	2.25	0.42	0.45	0.56	357,500	151,700	2.36	0.14	0.28	3.25
4	2.25	0.33	0.45	0.56	352,600	142,800	2.47	0.10	0.20	3.31
5	2.25	0.52	0.42	0.49	356,400	146,000	2.44	0.11	0.22	2.91
6	2.25	0.50	0.45	0.49	367,900	153,900	2.39	0.11	0.22	2.85
7	2.25	0.47	0.50	0.49	361,900	150,900	2.40	0.11	0.22	2.87
8	2.25	0.40	0.46	0.49	369,800	139,750	2.65	0.11	0.22	3.14
9	2.25	0.54	0.47	0.49	366,000	138,650	2.64	0.10	0.20	3.11
10	2.25	1.25	0.73	0.73	331,000	147,500	2.24	0.24	0.48	4.16
11	2.25	0.76	0.85	0.85	326,000	156,750	2.08	0.25	0.50	4.48
12	2.25	0.27	0.76	0.85	326,000	148,200	2.20	0.26	0.52	4.73

Source: Fitch Ratings

Dynamic Loss Reserve

	A	(i)	(ii)	B	(iii)	(iv)	C	(v)	D	
		Default Proxy/ Sales 4 Months Prior (%)	3-Month Rolling Average of (i) (%)	Default Ratio 12-Month Peak of (ii) (%)	4 Months' Cumulative Sales(\$)	Eligible Receivable Balance (\$)	Loss Horizon Ratio (iii)/(iv)	12-Month Sample Standard Deviation (%)	Default Volatility Factor (2.00 x [v]) (%)	Loss Reserve ([AxBxC]+D) (%)
Month	Rating Multiplier									
1	2.25	0.32	0.44	0.56	319,600	140,700	2.27	0.13	0.26	3.12
2	2.25	0.60	0.49	0.56	332,000	150,750	2.20	0.14	0.28	3.05
3	2.25	0.42	0.45	0.56	357,500	151,700	2.36	0.14	0.28	3.25
4	2.25	0.33	0.45	0.56	352,600	142,800	2.47	0.10	0.20	3.31
5	2.25	0.52	0.42	0.49	356,400	146,000	2.44	0.11	0.22	2.91
6	2.25	0.50	0.45	0.49	367,900	153,900	2.39	0.11	0.22	2.85
7	2.25	0.47	0.50	0.49	361,900	150,900	2.40	0.11	0.22	2.87

Dynamic Loss Reserve

	A	(i)	(ii)	B	(iii)	(iv)	C	(v)	D	
		Default Proxy/ Sales 4 Months Prior (%)	3-Month Rolling Average of (i) (%)	Default Ratio 12-Month Peak of (ii) (%)	4 Months' Cumulative Sales(\$)	Eligible Receivable Balance (\$)	Loss Horizon Ratio (iii)/(iv)	12-Month Sample Standard Deviation (%)	Default Volatility Factor (2.00 x [v]) (%)	Loss Reserve ([AxBxC]+D) (%)
Month	Rating Multiplier									
8	2.25	0.40	0.46	0.49	369,800	139,750	2.65	0.11	0.22	3.14
9	2.25	0.54	0.47	0.49	366,000	138,650	2.64	0.10	0.20	3.11
10	2.25	1.25	0.73	0.73	331,000	147,500	2.24	0.24	0.48	4.16
11	2.25	0.76	0.85	0.85	326,000	156,750	2.08	0.25	0.50	4.48
12	2.25	0.27	0.76	0.85	326,000	148,200	2.20	0.26	0.52	4.73

Source: Fitch Ratings

Dynamic Carrying Cost Reserve

Carrying cost reserve = (A+B) (%)										3.82
A	Senior costs reserve (%) (a/360)xbxc									1.125
a	Annual senior expenses (x+y+z) (%)									3.00
	x. Back-up servicer (%)							2.00		
	y. Trustee fees (%)							0.50		
	z. Other fees (%)							0.50		
b	Days sales outstanding									60
c	Stress factor									2.25
B	Yield reserve (%) (a/360)xbxc									2.69
a	Annual coupon rate (%)									7.18
	x. Reference rate (%)							2.50		
	y. Margin (%)							2.00		
	z. Reference rate stress (%)							2.68		
b	Days sales outstanding									60
c	Stress factor									2.25

Source: Fitch Ratings

Appendix 2: Data Sources

Criteria Development

The key rating assumptions for the criteria are informed by Fitch's analysis of transaction documents, transaction data and the information received from the originator, transaction legal counsel and Fitch's analytical judgement.

Fitch reviewed the historical movement of short-term interest rates to determine the relevant interest rate stress for each currency.

Criteria Application

Fitch's trade receivables rating criteria rely on historical performance data to form an expectation of future collateral performance. Fitch reviews a minimum of three to five years of historical monthly performance data, ideally covering a full economic cycle. In most cases this means a longer history will be needed, and this will especially be the case where historical data has been volatile. The list below outlines the key data that Fitch reviews. Fitch may also request additional detailed information, case by case.

- Monthly receivables' balance and the breakdown of receivables into different ageing buckets.
- Monthly credit sales volumes.
- Monthly credit notes issued.
- Monthly write-offs.
- Monthly turnover rate of the trade receivable pool (measured by DSO).
- Summary of credit terms offered to customers.
- Summary of incidents that lead to issuing credit notes and the accounting provision on dilutions.

The above information is typically generated by receivable management systems. Comprehensive data systems are a vital component of any trade receivables securitization, as they allow the successful monitoring of a pool that may turn over entirely in a short time.

The seller/servicer's systems should accommodate the following.

- Offers of sale of receivables to the purchaser by the originator can be made on a regular and frequent basis.
- The dynamic CE calculation can be applied with minimal delay, using asset reports that are generated on a timely basis.
- Cash reconciliation can be undertaken efficiently, so that any securitized cash held by the originator can be transferred to the purchaser quickly and is identifiable in the event of an originator's insolvency.
- Data can be transferred quickly to an entity that will undertake collection functions in case of insolvency of the originator or servicer.
- Obligors can be notified quickly when a notification trigger is breached.
- Securitised assets can be separated from non-securitized assets.

Fitch will assess whether receivable management systems used by the originator are capable of generating the above information on a timely basis, so that the performance of a fast-changing receivable pool can be monitored and reported in a timely manner. Fitch will assess whether back-up systems and effective disaster recovery procedures are in place so that minimum disruption occurs due to any interruption of the receivables management system.

In the absence of certain performance data, Fitch will assess the materiality and relevance of such data in accordance with its *Global Structured Finance Rating Criteria*, available on Fitch's website. Depending on the outcome of this assessment, Fitch will either adjust its approach (e.g. not give credit to certain elements), cap the rating(s), or decline to rate the transaction. Where these alternative adjustments are applied, the approach and corresponding criteria will be highlighted in Fitch's transaction rating reports.

Appendix 3: Common Transaction Eligibility Criteria

An eligible receivable is one that:

- is in respect of goods and/or services already delivered or performed;
- is denominated in a specified currency or currencies;
- is owed by an eligible obligor (see below);
- is owned by the originator and properly documented, and can be sold, assigned or transferred free of any charge, and in respect of which all legal requirements for enforceability, creation and completion of the sale/assignment/transfer have been complied with;
- is not subject to set-off;
- is not subject to any reduction, cancellation, or refund or any dispute, offset, counterclaim, lien or defense whatsoever;
- has arisen in the ordinary course of the originator's business;
- (if it is originated as part of an overall supply contract) has an originator not in breach of the overall agreement, or breach of the overall agreement does not affect the enforceability of the receivable;
- has payment terms that do not exceed a specified limit (to prevent the portfolio characteristics from changing dramatically over time);
- does not cause the obligor or country concentration limits to be breached when it is sold to the transaction;
- has a seller that has complied with its representations and warranties; and
- is current/not delinquent beyond a certain specified limit.
- An eligible obligor is one that:
 - is domiciled in a specified country, economic area or region (country concentration limits may apply where country ratings are below those targeted for the transaction and satisfactory legal opinions must be provided for each permitted jurisdiction);
 - is not in insolvency proceedings and in respect of which no bankruptcy petition has been made;
 - does not owe amounts in respect of defaulted receivables or receivables that are delinquent beyond a specified limit;
 - is not a subsidiary or an affiliate of the originator (the definition of an affiliate will vary by jurisdiction); and
 - is not an obligor with whom the seller has a "cash in advance" or "cash on account" arrangement.

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