OVERVIEW AND SCOPE

This guidance document provides additional information and guidance related to the application of S&P Global Ratings' "Counterparty Risk Framework: Methodology And Assumptions," published March 8, 2019. It is intended to be read and applied in conjunction with those criteria. For further explanation on guidance documents, please see the description at the end of this article.

Key Publication Information
- Original publication date: March 8, 2019.
- This article is related to "Counterparty Risk Framework: Methodology And Assumptions," March 8, 2019.
- We may revise this guidance from time to time, including when market dynamics warrant reevaluating the quantitative assumptions we generally use in our collateral framework assessment for derivative counterparties.

GUIDANCE

General Considerations

Determining whether a counterparty exposure is fully mitigated through legal or structural considerations

The criteria contemplate that the rating on the supported securities would not be constrained by the rating on the counterparty in situations where we assess that counterparty risk is mitigated by legal or structural factors. We may reach this conclusion if we assess that the supported
securities would not suffer any losses in the event that the counterparty defaulted on its relevant obligations. We provide some examples of this analysis below.

**Example 1: Mitigation of the counterparty risk of a bank account provider by using trust or custodial arrangements**

We may conclude that the exposure to a bank account provider is fully mitigated if we believe that the cash or securities deposited in a trust or custodial institutions would be subject to laws and regulations that isolate these accounts from the counterparty's insolvency risk.

To date, we have assessed that accounts holding securities may be isolated from the counterparty's default risk, particularly in the U.S., U.K., Argentina, Japan, Australia, and Mexico. In the U.S., we also consider that the counterparty risk of a bank account provider holding the issuer's cash is fully mitigated if the account provider is acting in a fiduciary capacity and the account is governed by Title 12 section 9.10(b) of the U.S. Code of Federal Regulations, or a similar U.S. state law. This requires that collateral be set aside to protect account beneficiaries of fiduciary funds held in a deposit account.

If the account provider is placing the issuer's cash in a deposit account that would not benefit from comparable legal protection, we would analyze the resulting counterparty risk according to the criteria. If the account provider is investing the issuer's cash in securities, the issuer is exposed to credit risk and market-value risk on those securities. We analyze these risks under our criteria article, "Global Investment Criteria For Temporary Investments In Transaction Accounts," published May 31, 2012.

**Example 2: Coverage of counterparty risk through credit enhancement**

Credit enhancement is an example of a structural feature that may lead us to conclude that a particular counterparty risk is fully mitigated and would not constrain the rating under the criteria. To reach this conclusion, we may perform a cash flow analysis of the transaction that simulates a counterparty default, in addition to the applicable rating stresses. If this supports a rating higher than that based on reliance on the relevant counterparty's performance, we would typically assign such higher rating to the notes (which would not be constrained by the rating on the counterparty).

For example:

- For a derivative counterparty, our cash flow analysis would simulate the issuer’s unhedged exposure to the risk that is hedged by the counterparty;
- For a liquidity facility provider, our cash flow analysis would consider a scenario where the liquidity facility is unavailable.

**Example 3: Government-sponsored deposit insurance schemes as a mitigant to commingling and/or set-off risks**

Government-sponsored deposit insurance schemes may mitigate:

- Deposit set-off risks where the insurance applies to the underlying borrower’s deposits; or
- Commingling risks where the insurance applies to the issuer’s funds.

Examples of government-sponsored entities that provide deposit insurance include the Financial Deposit Insurance Corp. in the U.S., the Deposit Insurance Corp. of Japan, and the Financial Services Compensation Scheme in the U.K. Examples where the insurance mitigates commingling risks include certain residential mortgage-backed securities transactions originated by Japanese deposit-taking institutions.
We will consider that the issuer is not exposed to the counterparty risk of the relevant depositary institution on the insured amount if we assess that the deposit insurance will pay out unconditionally and in a timely manner. If the insurance covers the full amount of the issuer's exposure and we expect it to pay out in a timely manner, the rating on the supported securities may not be constrained in relation to the counterparty risk of the depositary institution. We may also conclude that this counterparty risk is mitigated—e.g., if we believe that timely payment on the insurance is not certain—if our cash flow analysis demonstrates that a delay in payment will likely not result in a default on the supported security. If the insurance does not cover the full exposure, we will assess the counterparty risk exposure to the relevant depositary institution on the uninsured amount.

Exposures to government-sponsored deposit insurers are typically not mitigated through downgrade remedies that are common in other counterparty exposure types in structured finance transactions. If we consider that the creditworthiness of a government-sponsored deposit insurer is equivalent to that of the relevant sovereign, we do not constrain the structured finance rating under our counterparty criteria. Rather, we assess the transaction's sensitivity to sovereign default risk under our criteria for assigning structured finance ratings above the sovereign.

**Examples where the counterparty risk materiality is too great to be mitigated by typical downgrade remedies**

In exceptional cases, we may conclude that the exposure to a bank account provider is too material to be mitigated through downgrade remedies. For typical transaction bank accounts, the available cash will be distributed per the transaction's payment priority on each payment date, such that the account balance at any point in time is relatively limited. However, some transaction structures may allow the issuer to accumulate larger balances in an account. In such cases, we may conclude that the exposure is too material to be mitigated if we expect that the exposure amount may remain at a similar magnitude to the total balance of the supported securities, for longer than a typical 90-calendar-day remedy period.

In our analysis of funded synthetic transactions, we would also typically consider that certain counterparty exposures are too material to be mitigated by typical downgrade remedies. This would be the case, for example, for certain derivatives, bank accounts holding cash collateral for longer than 90 calendar days, and other obligations of counterparties that provide functional equivalents (such as total return swaps, repurchase agreements, or investment agreements). We typically consider such counterparties in funded synthetic transactions to be substantially the sole source of repayment of the supported securities.

Our assessment of whether an obligation is too material to be mitigated considers the size, nature, and duration of the issuer's exposure to the counterparty. When considering the duration of an exposure, we also consider the nature of the remedy a counterparty has committed to take. If a counterparty commits to draw its obligation to cash during a remedy period, we may consider the issuer's exposure to the counterparty to be limited to the remedy period. We may, therefore, assess that, although the size of a specific exposure is material, the exposure's limited duration allows it to be mitigated. To avoid doubt, we would not assess that the exposure duration is limited to the remedy period if the counterparty commits to replace itself but does not commit to draw its obligation to cash.

For example, if a transaction is supported over its entire life by a material letter of credit facility, and the counterparty commits only to replace itself if downgraded below the minimum eligible counterparty rating, we may assess that the exposure is too material to be mitigated. However, if the counterparty also commits to draw the full obligation to cash if it has not replaced itself by the
end of the remedy period, we may consider that counterparty risk is mitigated by the downgrade remedies. This means that we may assign a higher rating than the rating on the counterparty if supported by our analysis of the counterparty's committed downgrade remedy actions. We note, however, that implementing the draw-to-cash remedy may create a further counterparty dependency on the entity holding the drawn amount, and we would assess the materiality of this exposure and any applicable downgrade remedies or alternative mitigating factors accordingly.

**Applicable counterparty rating—resolution counterparty ratings**

In determining whether a counterparty's issuer credit rating (ICR) or resolution counterparty rating (RCR) is the applicable counterparty rating, we assess whether the counterparty's obligation is an RCR liability. We base this analysis on the list of RCR liabilities published in our RCR jurisdiction assessments. Across jurisdictions where we currently assign RCRs, for the time being, we classify as RCR liabilities only obligations that are explicitly identified by legislation or by regulators as being excluded from bail-in. For counterparty obligations typically seen in structured finance transactions, this means that:

- We consider that collateralized derivatives are RCR liabilities and, therefore, the counterparty's RCR (if we have assigned one) is the applicable counterparty rating;
- We consider that uncollateralized derivatives are not RCR liabilities and, therefore, the ICR on the counterparty is the applicable counterparty rating;
- We generally do not consider that bank account exposures are RCR liabilities and, therefore, the ICR on the counterparty is the applicable counterparty rating;
- For covered bonds specifically, if a bank account provider is unrelated to the covered bond issuer, we may assess, on a case-by-case basis, whether the account constitutes a liability to a third-party credit institution with an original maturity of less than seven days, which would be protected from bail-in in the event of a resolution of the account provider. If so, we would classify the account as an RCR liability and, therefore, the RCR on the counterparty (if we have assigned one) would be the applicable counterparty rating;
- We generally do not consider that other types of counterparty obligations typically seen in structured finance transactions are RCR liabilities and, therefore, the ICR on the counterparty is generally the applicable counterparty rating for the other obligation types.

**Applicable counterparty rating—unrated counterparty with a rated parent**

The criteria contemplate that we may determine the applicable counterparty rating using "Group Rating Methodology," published Nov. 19, 2013. This analysis would consider the rating on the counterparty's group parent and the counterparty's group status. Under the criteria, we will assess whether the documented downgrade remedies reflect both the rating on the parent and the counterparty's group status.
Nonderivative Counterparties

Covering the cost of implementing downgrade remedies

Counterparties in structured finance transactions typically commit to cover any cost associated with implementing downgrade remedies, insulating the cash flows available to the rated notes from the impact of such costs. Without this commitment, our assessment of whether the implementation would result in any losses on the rated notes would follow our criteria article “Criteria Methodology Applied To Fees, Expenses, And Indemnifications,” published July 12, 2012.

Classifying counterparty exposures as "minimal" or "limited"

Under the criteria, a counterparty's obligation is classified as "limited" or "minimal" based on the issuer's sensitivity to the counterparty's performance on its obligation and the materiality of the issuer's counterparty exposure.

The following examples illustrate situations in which we may reach the conclusion that a counterparty's default on its obligation may not result in disrupted payments on the rated notes:

- The counterparty covers a risk that would not materialize as a direct consequence of the counterparty's default. An example of this would be a counterparty's obligation to fund a reserve to cover set-off risks on the securitized assets, where the issuer would only be exposed to losses if borrowers made set-off claims in the future;

- Structural features exist in the transaction that would mitigate the counterparty's default. An example of such a structural feature would be the frequent sweeping of cash amounts held on a bank account to limit the amount of cash that may accumulate on the account at any point in time. In this situation, we may assess that the resulting exposure would be small relative to the issuer's other available resources; therefore, a counterparty default would likely not directly disrupt payments on the rated notes.

If we have assessed that the counterparty's default on its obligation would not in itself result in disrupted payments on the rated notes, under the criteria, we then assess the materiality of the exposure to the counterparty. We explain below how we generally assess the materiality of counterparty risk for those exposures that are quantified as a fixed amount and for those exposures where the amount is a function of the payment profile of the assets and the frequency of distributions to noteholders, such as typical bank account exposures.

Fixed amount

When the exposure amount is fixed (or capped) at a certain amount, we generally classify the sensitivity to counterparty risk relative to a materiality threshold of 5% of the original pool balance (or, for revolving structures and programs with ongoing issuance, the higher of the original and current pool balances). We classify exposures above the threshold as "limited" and exposures equal to or below the threshold as "minimal".

A transaction may have multiple fixed (or capped) amount exposures (e.g., a liquidity facility and a reserve fund commitment) to the same counterparty. If we assess that failure to perform on any of these obligations individually would not lead to a direct disruption in payments on the rated notes, then we consider such exposures' materiality in aggregate relative to the 5% threshold to determine whether the exposures are collectively "limited" or "minimal". If we determine that
default on any one of these obligations could itself lead to a payment disruption, we will generally classify such exposure as "limited" and exclude it from the aggregate by which we assess the remaining exposures' materiality.

We will generally not include in this aggregation calculation those exposures that are a function of the payment profile of the assets and the frequency of distributions to noteholders, such as for bank accounts, for which our analysis is described below.

**Bank account providers with amounts that vary with the asset payment profile and are distributed to noteholders on each payment date**

For accounts where collections from securitized assets are held, the size of the exposure to the counterparty depends on the payment profile of the securitized assets and the frequency at which the amount on the account is distributed to noteholders. For typical accounts with monthly or quarterly distributions, we generally classify the sensitivity to counterparty risk as shown in table 1 below. These classifications reflect the materiality of the exposure to a bank account provider based on the amount of cash that may accumulate for a typical asset pool payment profile.

<table>
<thead>
<tr>
<th>Securitized asset type</th>
<th>If we assess that counterparty default would directly disrupt payments on supported securities</th>
<th>If we assess that counterparty default would not directly disrupt payments on supported securities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential mortgages</td>
<td>Limited</td>
<td>Minimal</td>
</tr>
<tr>
<td>Auto loans</td>
<td>Limited</td>
<td>Minimal</td>
</tr>
<tr>
<td>Auto lease</td>
<td>Limited</td>
<td>Limited (may also be Minimal in the absence of concentrations of residual value maturities in any given month)</td>
</tr>
<tr>
<td>Student loans</td>
<td>Limited</td>
<td>Minimal</td>
</tr>
<tr>
<td>Consumer loans</td>
<td>Limited</td>
<td>Minimal</td>
</tr>
<tr>
<td>Credit cards</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>Trade receivables</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>Commercial mortgages</td>
<td>Limited</td>
<td>Minimal</td>
</tr>
<tr>
<td>Auto dealer floorplan loans</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>Equipment loans and leases</td>
<td>Limited</td>
<td>Minimal</td>
</tr>
<tr>
<td>Corporates/SMEs (CDO/CLG)</td>
<td>Limited</td>
<td>Minimal</td>
</tr>
<tr>
<td>Manufactured housing</td>
<td>Limited</td>
<td>Minimal</td>
</tr>
</tbody>
</table>

SME—Small- to medium-size enterprise. CDO—Collateralized debt obligation. CLO—Collateralized loan obligation.

For accounts in transactions secured by assets not covered in table 1 above or by assets listed in table 1, but that feature atypical payment profiles or structural features that may affect our typical classification, we would generally assess materiality of the counterparty risk exposure relative to the 5% materiality threshold described above. We provide guidance on the sizing considerations in the Commingling Risks And Potential Mitigating Factors section below.
For some transactions, amounts may not be distributed to noteholders on each payment date. For example, in revolving structures, principal receipts may accumulate on an account before reinvestment. In structures where a tranche has a scheduled amortization, principal receipts that exceed the scheduled distributions may accumulate on an account. In these cases, we would generally assess materiality of the counterparty risk exposure relative to the 5% materiality threshold described above.

**Commingling risks and potential mitigating factors**

**Legal and structural factors that mitigate commingling risks**

Investors may be exposed to payment delays (liquidity risk) or losses (credit risk) if remittances from the underlying assets in a structured finance transaction are collected into a servicer account and the servicer becomes the subject of insolvency proceedings, i.e. commingling risk. In structured finance transactions, this risk is primarily related to a servicer insolvency scenario. However, it may also arise if a third party holding cash on the servicer’s behalf, depending on the servicer’s obligations to the issuer, becomes insolvent.

Under the criteria, we may conclude that such commingling risks do not constrain the rating on the supported securities because:

- Our legal analysis concludes that the issuer would not be exposed to commingling risk upon a counterparty insolvency;
- We consider that structural mechanisms effectively protect the issuer from any loss or delay on receiving funds upon the counterparty’s insolvency; or
- Our cash flow analysis demonstrates that the supported securities could withstand any loss or delay on the commingled funds.

**Assessment of structural mitigants**

Structural mechanisms that we believe may reduce or eliminate the issuer’s exposure to servicer commingling risk include:

- A commitment to deposit all collections that the issuer is entitled to receive into a deposit account with an eligible counterparty in the issuer’s name within two business days of receipt. However we must believe that no further amounts would be lost due to borrowers continuing to make payments to the servicer following a servicer default. Both the potential exposure amount and impact on the supported security are considered in determining whether this two-day exposure is consistent with the rating on the security without the benefit of additional mitigating factors.
- The provision of a cash reserve, additional credit enhancement, or a liquidity facility to cover potential delays.
- Obligor payments made directly into an account in the issuer’s name.
- Obligor payments made into a lockbox account to which the servicer has limited access until the funds are transferred into a bank account in the issuer’s name.

If commingling risk is mitigated through cash reserve funds, we will assess whether the amount funded covers commingling risk fully or partially. Our assessment would consider both the amounts that may accumulate with the servicer before its insolvency and any amounts that may
be paid to the servicer following its insolvency. To assess the amounts that may accumulate with the servicer, we will generally consider the borrower payment schedules on the securitized assets and the frequency at which the servicer will pay the issuer the collections it is entitled to receive. To determine whether the issuer may be exposed to losses on (or delays in receiving) collections paid to the servicer after its insolvency, we may consider any legal or operational factors that mitigate this risk, such as any automatic redirection of payments. If we believe there is a risk of loss or delay after the servicer’s insolvency, we would assess the time required to notify borrowers to switch their payments to determine the magnitude of the potential loss or delay to the issuer.

**Classifying exposures as "minimal" or "limited"**

We may also assess under the criteria that commingling risks are mitigated up to a certain rating level, the maximum supported rating, based on a counterparty's commitments to implement certain remedies if it is downgraded below a minimum eligible counterparty rating. The criteria provide the framework for determining the maximum supported rating, based on the minimum eligible counterparty rating and our classification of the counterparty risk exposure. Typical downgrade remedies include:

- The replacement of the servicer; or
- Implementing structural mechanisms that effectively protect the issuer from any loss or delay on receiving funds upon the counterparty’s insolvency.

In our assessment of the issuer’s exposure to commingling risks as "limited" or "minimal" under the criteria, we would determine whether the loss or delay in receiving (as relevant) the amount of funds at risk upon a servicer insolvency would in itself result in disrupted payments on the rated notes. If so, we would classify the exposure as "limited." If not, we would assess the exposure’s materiality (see guidance above regarding the consideration of materiality for exposure sizes that are a function of the payment profile of the assets and the frequency of distributions to noteholders).

**Third-party collection accounts** If a servicer holds collections received from securitized assets in an account with a third party, before transferring these collections to the issuer, we also may assess whether this arrangement exposes the issuer to the counterparty risk of this third party in addition to its exposure to the servicer counterparty risk.

In particular, in certain jurisdictions, servicers often provide (for the issuer’s benefit) a declaration of trust over the account or an equivalent mechanism to protect the issuer’s access to collections held with a third party if the servicer becomes insolvent. While these mechanisms may mitigate the issuer’s exposure to the servicer counterparty risk, they do not protect the issuer from the insolvency of the third-party account provider.

If the servicer must still pay the issuer any amounts that would be lost following this third-party account provider’s default, we may consider that the issuer is only exposed to the counterparty risk of the servicer and not the third-party account provider. On the other hand, if the third party’s insolvency could result in a loss to the issuer, we may consider the issuer to be exposed to bank account counterparty risk; in such cases, we would assess any available remedies or mitigating factors to determine the maximum supported rating.
Derivative Counterparties

Analysis of the enforceability of the collateral arrangement

We may revise our enforceability assessment over time if new facts emerge that increase or decrease our view of the likelihood of successfully enforcing the collateral arrangement in a counterparty default scenario (e.g., a change in law or relevant new case law emerges). If we do revise our enforceability view, this would likely affect our assessment across transactions with collateralized derivatives in the relevant jurisdiction.

Our analysis of the enforceability of the collateral arrangement considers whether the collateral posted by the derivative counterparty is held by an independent third party (i.e., custodian). If applicable, we will analyze the issuer's exposure to the counterparty risk of the custodian. To the extent that we are relying on custodian downgrade remedies (rather than legal factors) to mitigate the risk, we would generally expect to assess the exposure as "limited" (rather than "minimal") under these criteria. This is because a default of the entity holding the collateral would render that collateral unavailable to the issuer. The issuer would therefore be unable to return collateral to the derivative counterparty if required or to use the collateral to replace the derivative counterparty if it defaults.

A derivative counterparty may only be required to post collateral if its rating is lowered below a certain threshold. As a result, the ultimate custodian may not be identified at the time the derivative is executed, or the documentation may identify an initial custodian that is related to the derivative counterparty. If we assess that the issuer's exposure to the counterparty risk of the account provider is mitigated through the documented minimum eligible counterparty rating for the custodian, we consider that the condition of independence is met. This is because the minimum eligible counterparty rating supports, in our view, that the ultimate custodian will be independent from the derivative counterparty if the derivative counterparty approaches default.

Assets eligible to be posted as collateral

In addition to cash, we currently consider that local currency bonds (coupon-bearing or zero-coupon bonds that mature within one year) issued by the following sovereigns would be eligible while their local currency sovereign ratings remain at least as high as 'A':

- Australia;
- Austria;
- Belgium;
- Canada;
- Denmark;
- Finland;
- France;
- Germany;
- Hong Kong;
- Japan;
We also consider that coupon-bearing covered bonds are eligible if they meet all of the following conditions:

- Their S&P Global Ratings long-term rating is at least 'AA-';
- They are eligible as level one high-quality liquid assets under the counterparty's national liquidity coverage ratio regulation; and
- They are not issued by the counterparty or an affiliate of the counterparty.

**Quantitative assumptions for the coverage of volatility risks after a counterparty default**

**Market-value and currency haircuts**

The criteria set out the factors considered in the calibration of quantitative assumptions for market-value and foreign exchange haircuts commensurate with each collateral framework assessment better than "weak". The output of this calibration is shown in tables 2 and 3.
### Table 2

**Applicable Market Value Haircuts For Eligible Assets Under The Criteria(i)**

<table>
<thead>
<tr>
<th>Remaining term to maturity (years)</th>
<th>[0; 1]</th>
<th>(1; 3]</th>
<th>(3; 5]</th>
<th>(5; 7]</th>
<th>(7; 10]</th>
<th>(10; 15]</th>
<th>(15; 20]</th>
<th>&gt;20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Haircuts for &quot;strong&quot; collateral assessment (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sovereigns</td>
<td>8.0</td>
<td>10.0</td>
<td>12.0</td>
<td>14.0</td>
<td>18.0</td>
<td>19.0</td>
<td>20.0</td>
<td>21.0</td>
</tr>
<tr>
<td>Covered bonds</td>
<td>12.0</td>
<td>15.0</td>
<td>18.0</td>
<td>21.0</td>
<td>27.0</td>
<td>28.5</td>
<td>30.0</td>
<td>31.5</td>
</tr>
<tr>
<td><strong>Haircuts for &quot;adequate&quot; collateral assessment (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sovereigns</td>
<td>5.0</td>
<td>5.0</td>
<td>7.0</td>
<td>7.0</td>
<td>8.0</td>
<td>8.0</td>
<td>9.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Covered bonds</td>
<td>7.5</td>
<td>7.5</td>
<td>10.5</td>
<td>10.5</td>
<td>12.0</td>
<td>12.0</td>
<td>13.5</td>
<td>15.0</td>
</tr>
<tr>
<td><strong>Haircuts for &quot;moderate&quot; collateral assessment (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sovereigns</td>
<td>0.5</td>
<td>2.0</td>
<td>2.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.5</td>
<td>5.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Covered bonds</td>
<td>1.0</td>
<td>4.0</td>
<td>4.0</td>
<td>8.0</td>
<td>8.0</td>
<td>9.0</td>
<td>10.0</td>
<td>11.0</td>
</tr>
</tbody>
</table>

(i) The symbol '(' denotes exclusion of the first data point in the range, and the symbol ')' denotes the inclusion of the last data point in the range.

### Table 3

**Currency Haircuts Commensurate With Each Collateral Framework Assessment**

<table>
<thead>
<tr>
<th>&quot;Strong&quot;</th>
<th>&quot;Adequate&quot; or &quot;moderate&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Currently, eligible currencies for posting collateral and that are consistent with the haircuts set out in table 3 above are:
- U.S. dollar;
- Euro;
- Japanese yen;
- British pound;
- Canadian dollar;
- Danish krone;
- Norwegian krone;
- Swedish krone;
- Swiss franc;
- Australian dollar;
- New Zealand dollar;
- Singapore dollar;
- Hong Kong dollar; and
- Korean won.
Examples of additional factors that may limit the maximum supported rating

Limiting the collateral framework assessment for derivatives with increased volatility risks

An example where we may apply such flexibility is where we assess that a specific type of swap may exhibit higher volatility risks than the typical interest-rate and currency derivatives seen in established structured finance markets, which are reflected in volatility buffer assumptions included in the criteria. We may reach such a conclusion, for example, for transactions in jurisdictions where the use of derivatives in structured finance is less established. In such cases, we assess the collateral framework as no better than "adequate" depending on our assessment of the incremental volatility risk relative to typical derivatives in established structured finance markets. We would assess the collateral framework as "moderate" if we consider that there is no effective coverage of volatility risks that may arise after the counterparty's default. In extreme cases, we may assume a collateral framework assessment as low as "weak". A "weak" assessment reflects our view that the likelihood that collateral could be used to enter into a new hedge following a counterparty default is insufficient to warrant any ratings uplift.

Issuer fails to exercise termination rights following a counterparty's failure to replace itself

An example where we may apply such flexibility to assign a weaker collateral framework assessment is when we monitor a transaction in which a counterparty has not replaced itself and the issuer has not exercised its termination right to replace the counterparty. We would assign a weaker collateral framework assessment than would otherwise be supported if we conclude that this failure shows that the issuer will likely not secure a replacement if the counterparty defaults. We may reach such a conclusion, for example, if the issuer has not secured a replacement counterparty even though significant time has elapsed following the initial downgrade or if the counterparty's creditworthiness has continued to deteriorate following the initial downgrade.

Material liquidity risks upon counterparty default (other than swap termination payments)

Another example where we may allow for a downward adjustment to the collateral framework assessment is if we believe a transaction would be exposed to a material liquidity risk between the initial swap counterparty's default and the entry into a swap with a new counterparty (other than the liquidity risk associated with senior termination payments, which are already captured in the criteria). We would generally apply such an adjustment where the derivative counterparty's creditworthiness has deteriorated and is closer to default (e.g., where the counterparty's rating is below the minimum eligible counterparty rating and has failed to replace itself within the remedy period) because we would have some visibility as to the circumstances that an issuer would be facing in a counterparty default scenario (particularly in terms of the rate environment).

In particular, we may apply this adjustment if we believe the issuer will likely not make payments on the rated securities without a hedge in the short-term aftermath of a counterparty default. To assess the potential for and materiality of liquidity risk in a counterparty default scenario, we may consider:

- The transaction’s payment mechanics, particularly whether principal receipts may be used to make interest payments on the notes;
- Any cash reserves in the transaction that would provide available liquidity;
- The issuer's ability to use the collateral received from the counterparty to make interest payments on the notes before entering into a new swap;
- The materiality of the swap cash flows to the transaction; and
- Any other structural features that may support or hinder the issuer's liquidity profile in a counterparty default scenario (e.g., excess spread between interest received on the assets and interest paid on the liabilities may provide short-term liquidity to the issuer).

In these cases, we would determine the adjustment to the maximum supported rating by benchmarking the magnitude of the liquidity risk to that of senior-ranking termination payments as follows:

- If we identify a liquidity risk of commensurate magnitude to the senior termination payments, we may align the maximum supported rating with the rating that would be supported if termination payments were senior, all else equal.
- If we identify a liquidity risk that is material but less so than a senior termination payment, we may determine the maximum supported rating between a situation with senior termination payments and a situation with no liquidity risk.
- In assessing a liquidity risk’s materiality, we may consider the potential magnitude of the liquidity risk relative to the interest payments the issuer owes on the supported securities.

Application of the materiality threshold to derivative counterparties in covered bond transactions

The criteria contemplate that the covered bond rating may exceed the maximum supported rating for a given counterparty (or counterparties) if the cumulative total exposure (based on notional amount) to the counterparty that supports lower ratings does not exceed 5% of the balance of outstanding covered bonds. If there are multiple derivatives on the same assets within the cover pool (for example, an interest rate swap and a foreign exchange swap) with the same counterparty, we do not cumulate the notional amounts of these derivatives in our application of this materiality threshold. We consider that the relevant exposure is to the asset amount hedged with that counterparty.

Assessing legacy exposures under the criteria

Derivative exposures--downgrade remedies that supported 'AAA' security ratings under our 2013 counterparty criteria

Legacy transactions, for which derivative contracts were drafted prior to the publication of our current counterparty criteria, may refer to provisions of our previous criteria. In particular, contracts may include downgrade remedies that were drafted to support 'AAA' security ratings under our previous criteria. We include below a mapping of outcomes from our 2013 counterparty criteria to our current criteria, for typical fact patterns.

Similar to our current criteria, our 2013 criteria assessed the counterparty’s replacement commitment and collateral-posting framework in determining the maximum supported rating. They also considered that a lower minimum eligible counterparty rating may be offset by a stronger collateral framework and vice versa. The 2013 criteria presented different combinations of minimum eligible counterparty ratings and volatility buffer amounts as replacement options 1/2/3/4. The current criteria classify the collateral framework into four buckets (“strong”/“adequate”/“moderate”/“weak”). In most cases, the combinations that support ‘AAA’ ratings under our 2013 criteria continue to do so under the current criteria. In some cases, differences in the calibration of volatility buffers may lead to different rating outcomes. The
calibration of our current criteria focuses the volatility buffer assumptions on the volatility risk of each derivative type over a specified time frame after a counterparty's default (90 calendar days for a "strong" assessment and two weeks for "adequate"). Our 2013 criteria included a less-specific calibration of volatility buffer assumptions and were focused on the analysis of a counterparty's economic incentive to replace itself following a downgrade. Our current criteria volatility buffer assumptions commensurate with a "strong" assessment are generally lower than our 2013 criteria's "replacement option 1" volatility buffer assumptions for interest rate swaps, but higher for floating-floating currency swaps.

Table 4 provides some general guidance on the mapping of maximum supported ratings from the 2013 criteria to the current criteria for different swap types commonly seen in structured finance transactions. This mapping considers all changes to our assumptions in the sizing of collateral-posting amounts between the two criteria articles. We have compared the total collateral amount that would be posted for:

- A derivative reflecting each replacement option under our 2013 criteria, and
- A derivative reflecting each collateral framework assessment under our current criteria.

This comparison of the total collateral amount means that a shortfall in one of the assumptions (such as market-value or currency haircuts) may be offset by an excess in another (such as the documented volatility buffer assumptions).

Note that for our analysis of counterparty risk in covered bonds, the maximum supported rating levels indicated in table 4 are only relevant if the counterparty is related to the covered bond issuer and termination payments would be subordinated upon the default of the counterparty. The collateral framework assessments in table 4 are relevant for both related and unrelated counterparties, regardless of the ranking of termination payments.

### Mapping Of 'AAA' Replacement Options In 2013 Criteria To Maximum Supported Rating Outcomes Under Current Criteria

<table>
<thead>
<tr>
<th>Replacement option under current criteria</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interest rate swaps</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If collateral can only be posted in the currency of the counterparty's obligation: Collateral framework assessment is &quot;strong.&quot; Supports 'AAA' under current criteria.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collateral framework assessment is &quot;adequate.&quot; Supports 'AAA' under current criteria.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Collateral framework assessment is &quot;adequate.&quot; Supports 'AAA' under current criteria.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Collateral framework assessment is &quot;weak.&quot; Supports 'AAA' under current criteria.</td>
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</tr>
<tr>
<td><strong>Cross-currency swaps--fixed-floating</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collateral framework assessment is &quot;adequate.&quot; Supports 'AAA' under current criteria.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Collateral framework assessment is &quot;strong.&quot; Supports 'AAA' under current criteria.</td>
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</tr>
<tr>
<td>Collateral framework assessment is &quot;adequate.&quot; Supports 'AAA' under current criteria.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Collateral framework assessment is &quot;weak.&quot; Supports 'AAA' under current criteria.</td>
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</tbody>
</table>
Mapping Of 'AAA' Replacement Options In 2013 Criteria To Maximum Supported Rating Outcomes Under Current Criteria (cont.)

<table>
<thead>
<tr>
<th>Cross-currency swaps--floating-floating</th>
<th>Collateral framework assessment is &quot;adequate&quot; or &quot;moderate&quot; depending on maturity. Supports 'AA-' or 'AA' under current criteria.</th>
<th>Collateral framework assessment is &quot;moderate.&quot; Supports 'AA+' under current criteria.</th>
<th>Collateral framework assessment is &quot;weak.&quot; Supports 'AAA' under current criteria.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-currency swaps--fixed-fixed</td>
<td>Collateral framework assessment is &quot;strong.&quot; Supports 'AAA' under current criteria.</td>
<td>Collateral framework assessment is &quot;adequate.&quot; Supports 'AAA' under current criteria.</td>
<td>Collateral framework assessment is &quot;weak.&quot; Supports 'AAA' under current criteria.</td>
</tr>
</tbody>
</table>

Existing swap documents drafted to reflect our 2013 criteria often allow the counterparty to switch between the replacement options in those criteria. This means that the counterparty may commit to post higher collateral amounts but to replace itself below a lower minimum eligible counterparty rating, while maintaining the same rating on the supported securities. Our 2013 criteria required that S&P Global Ratings must be notified of such option switches. Under our current criteria, we determine the maximum supported rating based on the currently applicable replacement and collateral-posting provisions. To the extent that the counterparty elects to switch to a different combination of replacement and collateral-posting provisions in the future, we will assess at that point whether the new provisions modify the maximum supported rating. Table 4 shows that for certain situations where the currently applicable provisions would not support a 'AAA' rating, a different replacement option would support a 'AAA' rating. If we receive notification that a counterparty has elected to switch to a replacement option that does support the current rating, the current criteria would not affect the rating supported by that counterparty.

RELATED CRITERIA
- Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019

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