Criteria | Structured Finance | General:

Counterparty Risk Framework: Methodology And Assumptions

March 8, 2019

OVERVIEW AND SCOPE

1. Our assessment of counterparty risk may constrain the rating assigned to a security if the maximum supported rating as determined under these criteria is lower than what would be supported under other applicable criteria in our analysis of that security.

2. These criteria apply primarily to structured finance and covered bond transactions. They also apply to the analysis of financial counterparty risk in project finance transactions. In addition, they apply in specific circumstances to our analysis of counterparties supporting other corporate and government issues that possess structured finance characteristics (e.g., catastrophe bonds, gas prepay financings, stand-alone tax-exempt single- and multifamily housing bonds, and equipment trust certificates). The criteria do not apply to other issues where counterparty risk is managed by the corporate or government issuer and the rating on the notes is not higher than that issuer’s creditworthiness.

Key Publication Dates

- Original publication date: March 8, 2019.
- Effective date: Effective immediately upon publication, except in markets that require prior notification to, and/or registration by, the local regulator. In these markets, the criteria will become effective when notified by S&P Global Ratings and/or registered by the regulator.
- Impact on outstanding ratings: See the Impact On Outstanding Ratings section.
- This article is related to “Guidance: Counterparty Risk Framework: Methodology and Assumptions,” March 8, 2019.
- These criteria address counterparty risk, as set out in “Principles Of Credit Ratings,” Feb. 16, 2011.

3. The criteria consider exposures to counterparties that either hold assets or make financial
payments that support the rated instrument’s creditworthiness. Counterparties that perform administrative or operational roles are not in scope of the criteria. In particular, paying agents (which typically do not hold cash overnight) and other providers of similar services are not in scope of the criteria. Such exposures are typically analyzed as administrative parties under "Global Framework For Assessing Operational Risk In Structured Finance Transactions," published Oct. 9, 2014. To avoid doubt, in transactions where servicers receive cash collections on the securitized assets, the financial exposure to the servicer is analyzed according to our counterparty criteria, whereas the operational risk is analyzed according to our operational risk criteria.

4. Counterparty risk is an important consideration in assessing the creditworthiness of structured finance and covered bond securities. Our analysis of counterparty risk focuses on third-party obligations to either hold assets (including cash) or make financial payments that support the instrument’s creditworthiness. Counterparty risks include exposures to institutions that maintain key accounts and providers of derivative contracts such as interest rate and currency swaps. Our analysis considers both the type of dependency and the rating on the counterparty for each counterparty relationship in a transaction.

5. The foundation of these criteria is the analysis of exposure to counterparty risk and of remedies that mitigate this risk, such as a contractual commitment the counterparty makes to act upon deteriorating creditworthiness. In particular, counterparties typically commit to replace themselves with a higher-rated counterparty if they are downgraded. For derivative obligations, counterparties often complement this replacement commitment with the posting of collateral. For other obligation types, counterparties may also fully fund ("draw-to-cash") their obligation so that the supported securities are no longer exposed to their credit risk.

6. These criteria consider how much the combination of available contractual remedies mitigates the supported securities’ exposure to counterparty credit risk before a counterparty default would disrupt payments on the rated notes.

**METHODOLOGY**

7. These criteria provide a framework for the analysis of counterparty risk and consider the following three broad fact patterns, as illustrated in chart 1:

- The rating on the supported securities is not constrained by the rating on the counterparty because counterparty risk is mitigated by legal or structural factors. For example, we may consider that commingling risk is fully mitigated if our legal analysis concludes that the issuer would not be exposed to commingling risk upon a counterparty insolvency or if structural mechanisms in the transaction protect the issuer from any loss or delay in receiving funds upon a counterparty insolvency.

- The rating on the supported securities is no higher than the rating on the counterparty because the counterparty does not commit to take any appropriate remedy actions upon downgrade or because we have determined that the materiality of the counterparty risk is too great to be mitigated by typical downgrade remedies. We would generally reach this conclusion if the counterparty is substantially the sole source of repayment for the supported security, as in a credit substitution. In determining whether a specific exposure matches this description, we will consider the exposure's nature, size, and duration.

- The rating on the supported securities may be higher than the counterparty's rating because counterparty risk is mitigated by the counterparty’s commitment to take certain remedy actions if its rating is lowered below a certain level. The remainder of these criteria focuses primarily on the analysis of such downgrade remedies. If a downgraded counterparty does not implement a committed remedy action, we would lower the rating on the supported notes,
potentially to the counterparty’s rating, unless other mitigating factors support a higher rating level.

Chart 1

Overview Of The Framework For Analyzing Counterparty Risk

Legal analysis supports that a counterparty insolvency would result in no loss on the supported securities...

... or cash flow analysis demonstrates that structural factors allow the supported securities to withstand a counterparty default scenario at a level of stress commensurate with a rating higher than that on the counterparty

Counterparty risk is not mitigated ...

... Or counterparty is substantially the sole source of repayment for the supported security

Counterparty risk is mitigated by counterparty’s commitment to implement downgrade remedies

Rating on the supported securities is not constrained by counterparty risk

Rating on the supported securities is no higher than the counterparty’s rating

Maximum Supported Rating may exceed the counterparty’s rating, based on our assessment of the downgrade remedies

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b. In exceptional cases where atypical risks exist that are not contemplated in these criteria, we may reduce the maximum supported rating. The magnitude of such a reduction is based on the available information and our view of the relevance of these factors to the overall assessment of counterparty risk.

c. The criteria separate the analysis of derivative obligations from the analysis of other obligations due to the specific considerations applicable to the analysis of derivative agreements (in particular, collateralization and termination events).
Determining The Applicable Counterparty Rating

10. The first step in our analysis is to determine the applicable counterparty rating. To determine the maximum supported rating on the securities, we consider the minimum eligible counterparty rating (i.e., the rating level below which counterparties typically commit to implement remedies), alongside the counterparty's current rating.

11. The applicable counterparty rating we will use for a specific obligation when applying these criteria is either the counterparty's issuer credit rating (ICR) or resolution counterparty rating (RCR), if relevant, depending on the obligation type.

12. The applicable counterparty rating we use in our counterparty risk analysis is:
   - The counterparty's RCR if we have assigned one and we believe the counterparty's obligation is an RCR liability according to the RCR criteria;
   - The counterparty's ICR if we have assigned an RCR to the counterparty but we believe the counterparty's obligation is not an RCR liability according to the RCR criteria; or
   - The counterparty's ICR if we have not assigned an RCR to the counterparty.

13. The local currency rating on the counterparty is relevant for obligations denominated in its local currency, whereas the foreign currency rating is relevant for obligations denominated in a different currency than the counterparty's local currency.

14. These criteria reference long-term ratings on the counterparty when defining the minimum eligible counterparty ratings. Certain counterparties may only have short-term ratings or only reference short-term counterparty ratings in their documentation. In such cases, to assess the documented remedies, we infer a long-term rating from the documented short-term rating. This is the lowest long-term rating that maps to the relevant short-term rating according to our criteria for linking long- and short-term ratings (see the Related Criteria And Research section).

15. Where a counterparty is not rated but belongs to a group with a rated parent, we may determine the counterparty's rating using our group rating methodology (see the Related Criteria And Research section) to the extent it is applicable to the group the counterparty belongs to.

16. Where a counterparty is the branch of a rated bank, the applicable counterparty rating for the purpose of these criteria is determined under our bank branch creditworthiness criteria (see the Related Criteria And Research section).

17. **Counterparty ratings limited by the relevant sovereign rating** Where a counterparty's rating is limited by the relevant sovereign rating at 'BB' or below, the applicable counterparty rating may refer to the higher of:
   - The ICR or RCR (as applicable to the relevant obligation type) and
   - The counterparty's standalone credit profile (SACP).

18. If the counterparty's SACP is the applicable rating (because it is higher than the relevant sovereign rating), we consider that the counterparty risk analysis addresses the issuer's exposure to a counterparty's idiosyncratic default risk. However, we also consider that the issuer would remain exposed to counterparty risk in a sovereign default scenario. This risk may affect our assessment of the transaction's sensitivity to sovereign default risk, under our criteria for assigning structured finance ratings that exceed the relevant sovereign rating.
Nonderivative Counterparties

19. Nonderivative obligations for which we would analyze counterparty downgrade remedies include, for example, transaction bank accounts, servicers collecting cash from securitized assets (which may create a commingling risk), liquidity or credit facilities, or commitments to fund reserves covering specific risks in a transaction. These obligations may form all or part of the credit enhancement provided to a supported security but would not be the sole repayment source for the supported security, as in a credit substitution.

20. For such counterparty exposures, typical counterparty downgrade remedies include a clear commitment by the counterparty, to:
   - Replace itself with, or obtain a guarantee from, a higher-rated counterparty at its own cost;
   - Prefund its counterparty obligation for the transaction’s life; and/or
   - Implement structural mechanisms (or other mitigating factors) that remove counterparty risk, within the remedy period.

21. We consider that such downgrade remedies effectively mitigate counterparty risk if the remedy period is no longer than 90 calendar days. For bank accounts specifically, a replacement commitment may rest with the issuer or its trustee or with the counterparty; for other obligation types, we believe the counterparty should make the replacement commitment.

22. For transactions where counterparty replacement is the applicable remedy, we consider the documented wording to be sufficiently firm if it states that the counterparty "will replace" itself if it is downgraded below the minimum eligible counterparty rating. We also give credit to replacement commitments that are worded as "will make commercially reasonably efforts to replace" in the following situations:
   - For bank accounts, if the commitment rests with the issuer or trustee rather than the counterparty; or
   - For other nonderivative obligations, if the commitment is associated with a commitment to fund or draw to cash the obligation within the remedy period if it is not replaced.

23. We determine the maximum supported rating on the basis of our classification of the exposure and the level of the remedy rating trigger, as shown in table 1.

24. We classify the rated notes’ counterparty risk exposures as "limited" or "minimal." We will classify an exposure as "limited" unless it meets both the conditions below to be classified as "minimal:"
   - Sensitivity to the counterparty’s performance on its obligation: We assess that the hypothetical scenario of the counterparty’s insolvency would not, in itself, disrupt payments on the rated notes. Our assessment will consider any structural features or other mitigating factors that may prevent a disruption in payments on the rated notes upon a counterparty default.
   - Materiality of the exposure: We assess that the materiality of the exposure to the counterparty is low, reducing the risk of a disordinate rating transition on the supported securities in the event that the counterparty fails to implement a remedy after its rating is lowered below the minimum eligible counterparty rating. Our assessment of materiality will consider the exposure size, which may be a fixed amount, or a function of transaction features, such as the payment profile of the securitized assets and the frequency of distributions to noteholders.

25. We will perform this classification when a new transaction is initiated and generally do not expect the classification to change over the transaction’s life.
Table 1

**Minimum Eligible Counterparty Rating And Corresponding Exposure**

<table>
<thead>
<tr>
<th>Minimum eligible counterparty rating</th>
<th>Limited exposure</th>
<th>Minimal exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>A and above</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>A-</td>
<td>AA</td>
<td>AAA</td>
</tr>
<tr>
<td>BBB+</td>
<td>A+</td>
<td>AAA</td>
</tr>
<tr>
<td>BBB</td>
<td>A</td>
<td>AAA</td>
</tr>
<tr>
<td>BBB-</td>
<td>A-</td>
<td>AA-</td>
</tr>
<tr>
<td>BB+</td>
<td>BBB-</td>
<td>A-</td>
</tr>
<tr>
<td>BB</td>
<td>BB</td>
<td>BBB</td>
</tr>
<tr>
<td>BB- and below</td>
<td></td>
<td>Counterparty rating</td>
</tr>
</tbody>
</table>

**Derivative Counterparties**

26. In our analysis, we consider the combined strength of the contractual remedies to determine the maximum supported rating on the structured finance notes for a given derivative counterparty exposure. We also consider the ranking of termination payments in situations where the counterparty is the defaulting or sole affected party, as well as other liquidity risks.

27. Derivatives typically include the following contractual commitments to implement certain remedies if the counterparty's credit rating is lowered:

- The counterparty posting collateral to mitigate the issuer's exposure to it;
- The counterparty's commitment to replace itself with an eligible counterparty;
- The issuer's ability to terminate the derivative if the counterparty fails to replace itself; and
- The subordination of termination payments in situations where the derivative terminates and the counterparty is the defaulting or sole affected party.

28. If a counterparty fails to replace itself within the remedy period after its rating is lowered below the minimum eligible counterparty rating, the maximum supported rating may remain above the counterparty's rating, depending on the strength of the collateral framework and the issuer's ability to terminate the derivative. This is because these two factors may allow the issuer to rehedge its exposure with an eligible replacement counterparty. The issuer may terminate the derivative with the initial counterparty and enter into a derivative on similar terms with a new counterparty if it receives a bid from an eligible replacement counterparty. If the issuer does not terminate the derivative and the initial counterparty eventually defaults, the issuer may still use available collateral to enter into a new derivative with an eligible replacement counterparty.

29. Chart 2 illustrates a typical derivative in a structured finance transaction from initiation through a hypothetical deterioration of a counterparty's credit quality and up to its default on the derivative. The chart highlights the points at which each remedy would be implemented and how this affects our analysis of counterparty risk.
Charts 3 and 4 show the steps of our derivative counterparty risk analysis, illustrating how we assess available remedies and determine the maximum supported rating.

Table 2 illustrates the maximum rating supported by the combination of replacement commitment and collateral posting, and table 3 indicates the uplift above the counterparty’s rating for ratings supported by a collateral posting and the issuer’s right to terminate the derivative. Both of the tables assume termination payments are subordinated. For avoidance of doubt, table 3 does not provide further notches of uplift beyond the maximum supported rating shown in table 2.
Steps To Determine The Maximum Supported Rating

Step 1: Determine the applicable counterparty rating.

Step 2: Assess the counterparty’s commitment to replace itself upon downgrades, if applicable.

Step 3: Assess the counterparty's collateral-posting framework, if applicable.

Step 4: Determine the maximum supported rating.

Step 5: Potential downward adjustment to the supported rating if termination payments rank senior when the counterparty is the defaulting or sole affected party.
Chart 4

Step 4: Determine The Maximum Supported Rating Based On The Applicable Remedies

Does the derivative include a counterparty replacement commitment that meets the minimum standards under step 2 in chart 3?

Yes

Counterparty rating is at or above the replacement trigger.

Maximum supported rating is a function of the minimum eligible counterparty rating and of the collateral framework assessment.

Table 2

No

Counterparty fails to replace after downgrade below the replacement trigger.

Maximum supported rating may be uplifted from the counterparty rating based on the collateral framework assessment and the issuer’s right to terminate the derivative.

Table 3

Maximum supported rating may be uplifted from the counterparty rating based on the collateral framework assessment.

Floor in table 2
Table 2

Maximum Rating Supported By The Combination Of Replacement Commitment And Collateral Posting

If termination payments are subordinated

<table>
<thead>
<tr>
<th>Replacement trigger</th>
<th>&quot;Strong&quot; collateral</th>
<th>&quot;Adequate&quot; collateral</th>
<th>&quot;Moderate&quot; collateral</th>
<th>&quot;Weak&quot; collateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA+</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA-</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>A+</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
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<tr>
<td>A</td>
<td>AAA</td>
<td>AAA</td>
<td>AA</td>
<td>AA</td>
</tr>
<tr>
<td>A-</td>
<td>AAA</td>
<td>AAA</td>
<td>AA+</td>
<td>AA-</td>
</tr>
<tr>
<td>BBB+</td>
<td>AAA</td>
<td>AA</td>
<td>AA-</td>
<td>A</td>
</tr>
<tr>
<td>BBB</td>
<td>AA</td>
<td>A+</td>
<td>A</td>
<td>BBB+</td>
</tr>
<tr>
<td>BBB-</td>
<td>A+</td>
<td>A-</td>
<td>BBB+</td>
<td>BBB-</td>
</tr>
</tbody>
</table>

Floor to supported rating:

- Counterparty rating + 3 notches
- Counterparty rating + 2 notches
- Counterparty rating + 1 notch
- Counterparty rating

Maximum supported rating is equal to the floor above in the following cases:

- Replacement trigger at ‘BB+’ or below
- Replacement commitment does not meet minimum standard
- No replacement commitment

Table 3

Uplift For Ratings Supported By Collateral Posting Framework And The Issuer's Right To Terminate The Derivative After The Counterparty's Failure To Replace

If termination payments are subordinated

<table>
<thead>
<tr>
<th>Strength of collateral framework</th>
<th>Uplift above counterparty rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Strong&quot;</td>
<td>Five notches</td>
</tr>
<tr>
<td>&quot;Adequate&quot;</td>
<td>Three notches</td>
</tr>
<tr>
<td>&quot;Moderate&quot;</td>
<td>Two notches</td>
</tr>
<tr>
<td>&quot;Weak&quot;</td>
<td>No uplift</td>
</tr>
</tbody>
</table>

We may perform a cash flow analysis simulating the default of a derivative counterparty (i.e., running the transaction cash flows without the benefit of the hedge) to determine the hypothetical rating that would be supported if a transaction were to become unhedged (hereafter referred to as the "hypothetical unhedged rating"). The maximum supported rating would then be no lower than this hypothetical unhedged rating, plus an uplift dependent on the collateral framework.
The uplift based on the collateral framework assessment allows us to differentiate a truly unhedged transaction from one benefiting from a collateralized derivative, where the absence or weakness of the replacement framework would otherwise constrain the rating. For the avoidance of doubt, this provision cannot lead to a final rating on the supported securities that exceeds the rating supported by our analysis of the transaction cash flows, with the benefit of the relevant hedge.

We would generally only perform this analysis if termination payments are subordinated to cash flows owed by the issuer on the rated notes upon the default of the derivative counterparty. If termination payments are not subordinated, a hypothetical unhedged cash flow simulation would not capture potential liquidity risks to the issuer if it owed a termination payment upon the default of the counterparty.

Adjusting the maximum supported rating to reflect senior termination payments

A termination payment is owed when the derivative contract is terminated. The payment's size and direction is determined by the contract's value on the termination date. For derivative contracts in structured finance transactions, termination payments are typically subordinated if the counterparty defaults on the derivative or if the counterparty is the sole affected party following an additional termination event (ATE).

If we assess that termination payments rank senior, then the maximum supported rating will be lower than if the termination payments were subordinated. This reflects liquidity risk upon a counterparty default and the reduced effectiveness of an ATE as an incentive for the counterparty to replace itself (see Appendix 1). However, we would apply no adjustment for the senior termination payments if we have assessed that this liquidity risk is otherwise mitigated, for example if the issuer must post margin to the counterparty and we have assessed that it would have sufficient resources to do so (see our special-purpose vehicle criteria article listed in the Related Criteria And Research section).

Replacement commitment

We will give credit in our analysis to a counterparty's contractual commitment to replace itself if the derivative documentation includes each of the following:

- The counterparty's clear and unambiguous commitment to replace itself (or make "commercially reasonable efforts" to do so) within a defined remedy period if its rating is lowered below the minimum eligible counterparty rating;

- A minimum eligible counterparty rating, of at least 'BBB-', below which a counterparty commits to replace itself (under these criteria, a higher minimum eligible counterparty rating supports a higher maximum rating on the securities);

- An ATE, which allows the issuer to terminate the derivative if a counterparty fails to replace itself within the contractual remedy period. If the remedy period is not quantified (see the next bullet point), we assess how the issuer's termination right may be enforced in a timely manner.
We consider that the applicability to the counterparty of the "breach of agreement" event of default supports this timely enforceability;

- A contractual remedy period no longer than 90 calendar days, or, if the remedy period is not quantified, it is defined as "as soon as reasonably practicable" (or similar language; in this case we also consider that a counterparty has failed to replace if it has not done so within 90 calendar days of its downgrade below the minimum eligible counterparty rating);

- Coverage by the counterparty of all costs from the replacement.

Collateral-posting frameworks

38. We will categorize the counterparty's collateral-posting framework for a given derivative contract as "weak," "moderate," "adequate," or "strong" based on our assessment of the likelihood that collateral would allow the issuer to rehedge its exposure upon a counterparty default. The factors that we consider in this determination are shown in chart 5 and in further detail in table 4.

39. We will generally rank a collateral framework in a given category only if it meets all of that category's conditions unless we consider a specific variation to be de minimis or otherwise mitigated.
Chart 5

Determining The Collateral Framework Assessment

- Is the derivative collateralized?
  - Yes
    - Does analysis support the view that the issuer will be able to enforce the collateral arrangement in a timely manner upon a counterparty default?
      - Yes
        - Collateral framework assessment is "Strong"/"Adequate"/" Moderate"/"Weak"
      - No
        - Increasing confidence that collateral would allow the issuer to rehedge upon a counterparty default
        - Increasing maximum supported rating
    - No
      - Collateral framework assessment is "weak."

Factors considered:
- Assessment of the risk that a counterparty may default before it has started to post collateral
- Assessment of the sufficiency of the collateral posted to allow the issuer to rehedge upon a counterparty default (see charts 6 and 7)

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### Table 4

**Collateral Posting Framework Assessments Summary**

<table>
<thead>
<tr>
<th>Collateral framework ranking</th>
<th>Strong</th>
<th>Adequate</th>
<th>Moderate</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counterparty rating below which posting is initiated*</td>
<td>'A-'</td>
<td>'BBB'</td>
<td>'BBB'</td>
<td>Does not meet all conditions for &quot;moderate&quot;</td>
</tr>
<tr>
<td>Remedy period to begin collateral posting (if applicable)</td>
<td>10 business days following downgrade of counterparty</td>
<td>10 business days following downgrade of counterparty</td>
<td>10 business days following downgrade of counterparty</td>
<td>Does not meet all conditions for &quot;moderate&quot;</td>
</tr>
<tr>
<td>Revaluation of collateral</td>
<td>At least weekly</td>
<td>At least weekly</td>
<td>At least weekly</td>
<td>Does not meet all conditions for &quot;moderate&quot;</td>
</tr>
<tr>
<td>Coverage of the issuer's exposure to the counterparty</td>
<td>Posting of mark-to-market</td>
<td>Posting of mark-to-market</td>
<td>Posting of mark-to-market</td>
<td>Does not meet all conditions for &quot;moderate&quot;</td>
</tr>
<tr>
<td>Coverage of volatility risk in the swap value</td>
<td><em>Strong</em> volatility buffers</td>
<td><em>Adequate</em> volatility buffers</td>
<td>No volatility buffers</td>
<td>Does not meet all conditions for &quot;moderate&quot;</td>
</tr>
<tr>
<td>Assets eligible as collateral</td>
<td>Cash; Eligible assets listed in our guidance to these criteria</td>
<td>Cash; Eligible assets listed in our guidance to these criteria</td>
<td>Cash; Eligible assets listed in our guidance to these criteria</td>
<td>Does not meet all conditions for &quot;moderate&quot;</td>
</tr>
<tr>
<td>Coverage of market value risk on collateral assets (if non-cash assets are posted)</td>
<td><em>Strong</em> market value haircuts</td>
<td><em>Adequate</em> market value haircuts</td>
<td><em>Moderate</em> market value haircuts</td>
<td>Does not meet all conditions for &quot;moderate&quot;</td>
</tr>
<tr>
<td>Coverage of currency risk on collateral assets (if currency mismatch exists between collateral and currency needed for replacement)</td>
<td><em>Strong</em> currency haircuts</td>
<td><em>Adequate</em> currency haircuts</td>
<td><em>Moderate</em> currency haircuts</td>
<td>Does not meet all conditions for &quot;moderate&quot;</td>
</tr>
</tbody>
</table>

*If both replacement and collateral are applicable remedies, the collateral posting trigger should be no lower than the replacement trigger

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**Collateral enforceability analysis**

Our analysis considers the issuer's ability to enforce the collateral arrangement if the counterparty defaults, so that it can access the collateral in a timely manner and use it to rehedge its exposure.

We expect that sophisticated market participants, in consultation with their legal advisers, have performed the necessary legal analysis to conclude that the issuer will be able, if the counterparty defaults, to enforce, access, and use the collateral posted by the counterparty to rehedge its exposure in a timely manner.

A key assumption underlying these criteria is that derivative collateral arrangements are legally enforceable in typical derivatives that we have seen in structured finance transactions where:

- The derivative agreement follows a standardized market-wide framework, such as the templates provided by the International Swaps and Derivatives Assn. (ISDA);
- The derivative is a market-rate hedge in the structured finance transaction (e.g., hedging interest rate or foreign exchange movements);
- The counterparty is a regulated financial institution;
- The use of derivatives in structured finance transactions in the counterparty's jurisdiction is well-established;
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- The collateral posted by the counterparty is held by an independent third party that is located in a jurisdiction that is typical for such accounts in structured finance transactions; and

- The assets eligible to be posted as collateral are limited to assets that are eligible under either these criteria or the Basel regulatory framework for margin requirements on noncentrally cleared derivatives.

43. In such cases, our analysis will focus on the review of elections made by the counterparties under the credit support annex (CSA), according to our criteria article "Global Derivative Agreement Criteria," published June 24, 2013. We will consider whether the elections made by the parties in the CSA give the issuer clear enforcement rights against the collateral if the counterparty is the defaulting party or the sole affected party.

44. In less typical cases, for example, where one or more of the above conditions are not met, we may request additional legal comforts, such as legal opinions, to support the assumption that the derivative collateral arrangement is legally enforceable.

45. If we conclude that the likelihood of enforceability of the collateral arrangement is commensurate with the uplift contemplated under these criteria, our enforceability analysis will not constrain the collateral framework assessment. If we do not reach this conclusion, we categorize the collateral framework as "weak."

Initiation of collateral posting and remedy period

46. Typically, counterparties will either begin to post collateral upon entering into a derivative agreement or will begin to post collateral when the counterparty is downgraded below a specified rating (the collateral-posting trigger). In order to support an assessment better than "weak," the counterparty should begin to post collateral within 10 business days of its downgrade below a trigger set at or above 'BBB'. If both replacement and collateral frameworks are applicable, the collateral posting trigger is generally higher than (or equal to) the applicable replacement trigger. If this were not the case, we may adjust the maximum supported rating downward if we assess that counterparty risk increases as a result.

Assessing the sufficiency of the collateral amount posted

47. After the initial counterparty defaults, for the issuer to enter into a replacement derivative with a new counterparty on similar terms, the issuer may need to pay an upfront premium to the new counterparty. Posted collateral can help fund this. To assess the collateral framework, our criteria assess the risks to the sufficiency of the collateral amount for this purpose, and any provisions that mitigate these risks, as illustrated in charts 6 and 7.
Chart 6

Assessment Of The Sufficiency Of The Collateral Posted to Allow The Issuer To Rehedge Upon A Counterparty Default

- Risk Factor
  - Over the period between the date of the derivative initiation and the date the counterparty defaults...
    - ...the premium required to enter into a replacement hedge will fluctuate with market rates
  - Over the period between the date the counterparty defaults and the entry into a new hedge, there may be fluctuations in...
    - ...the premium required to enter into a replacement hedge
    - ...the market value of non-cash collateral assets
    - ...exchange rates for foreign currency collateral
  - Collateral provision mitigating the risk factor
    - Collateral sized to cover the mark-to-market value, recalculated at least weekly
  - Volatility buffers included in the collateral amount
  - Eligibility criteria restricting the assets that may be posted as collateral
  - Market-value haircuts applied to the value of non-cash collateral assets
  - Currency haircuts applied to the value of foreign currency collateral

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We calibrate the quantitative assumptions for the volatility buffers and market-value and currency haircuts above, as follows:

- **Volatility buffers**: based on the simulation of mark-to-market (MTM) volatility on idealized swaps in hypothetical rate volatility scenarios, historical data on the volatility of swap prices, and, as a proxy, sovereign bond prices, in each case differentiated by remaining weighted-average life (WAL);

- **Market-value haircuts**: based on observed historical market-value declines for those asset types considered as eligible, differentiated by remaining asset term to maturity;

- **Currency haircuts**: based on observed historical volatility for the relevant currencies. We include in our published guidance to these criteria (and may update from time to time) a list of currencies that we consider to be eligible and the currency haircuts that we consider to be commensurate with a given collateral framework assessment for a given currency mismatch;
- For all of the above, we may also consider other market reference points (e.g., applicable haircuts or margin requirements under over-the-counter derivative regulation) and external research that may inform the calibration of specific assumptions.

49. We differentiate collateral framework assessments based on how robustly volatility risks are covered, by volatility buffers and market-value and currency haircuts. Specifically, we will assess the collateral framework as:

- "Strong," if we consider that volatility risks would be covered for at least 90 calendar days after the counterparty's default;
- "Adequate," if we consider that volatility risks would be covered for at least two weeks (but less than 90 calendar days) after the counterparty's default;
- "Moderate," if we consider that volatility risks would be covered up to the time of the counterparty's default only, with no coverage thereafter;
- "Weak," if we consider that the value of collateral posted at the time of the counterparty's default may be lower than the MTM value of the derivative.

50. The output of the above methodology to calibrate volatility buffers as a fixed percentage of the derivative notional amount, commensurate with "strong" and "adequate" collateral framework assessments, for typical structured finance interest rate and currency derivatives is shown in table 5 below. In our analysis of documented volatility buffers, we assess the range of possible prepayment assumptions that may be used in computing the remaining WAL (typically by referencing low prepayment speed assumptions from the relevant asset-class-specific S&P Global Ratings criteria).

51. For interest rate derivatives specifically, we consider that volatility buffers may alternatively be calculated as a multiple of a derivative's point-in-time dollar value of a basis point (DV01) measure, as an alternative to the fixed percentages of the notional amount shown in table 5. For currency derivatives, we consider that volatility buffers should be calculated as a fixed percentage of the notional amount. Where volatility buffers for interest rate derivatives are calculated as a function of DV01, the applicable multiple commensurate with each collateral framework assessment are:

- "Strong": 220 basis points x DV01;
- "Adequate": 100 basis points x DV01.

52. We may add assumptions over time for other types of derivatives in our published guidance to these criteria. In such cases, we would consider the assumptions in table 5 as a reference point for comparison, in addition to the factors listed above.

Table 5
Volatility Buffers For Interest Rate And Currency Derivatives

<table>
<thead>
<tr>
<th>As a % of the derivative notional amount</th>
<th>Volatility buffers supporting a &quot;strong&quot; collateral framework</th>
<th>Volatility buffers supporting an &quot;adequate&quot; collateral framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remaining Weighted-average life of swap (years)</td>
<td>Interest rate swap--fixed-floating</td>
<td>Interest rate swap--floating-floating</td>
</tr>
<tr>
<td>[0;1]</td>
<td>2.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>
Table 5

Volatility Buffers For Interest Rate And Currency Derivatives (cont.)

As a % of the derivative notional amount

<table>
<thead>
<tr>
<th>Remaining Weighted-average life of swap (years)(i)</th>
<th>Volatility buffers supporting a &quot;strong&quot; collateral framework</th>
<th>Volatility buffers supporting an &quot;adequate&quot; collateral framework</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Interest rate swap--fixed-floating</td>
<td>Interest rate swap--floating-floating</td>
</tr>
<tr>
<td>(1;2]</td>
<td>4.0</td>
<td>2.5</td>
</tr>
<tr>
<td>(2;3]</td>
<td>6.0</td>
<td>2.5</td>
</tr>
<tr>
<td>(3;5]</td>
<td>8.5</td>
<td>3.0</td>
</tr>
<tr>
<td>(5;7]</td>
<td>10.0</td>
<td>3.5</td>
</tr>
<tr>
<td>(7;10]</td>
<td>12.0</td>
<td>4.0</td>
</tr>
<tr>
<td>(10;15]</td>
<td>14.0</td>
<td>4.5</td>
</tr>
<tr>
<td>(15;20]</td>
<td>14.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Greater than 20</td>
<td>15.0</td>
<td>5.5</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.

53. To support a collateral framework assessment better than "weak," the posted collateral should be limited to cash and/or high-credit-quality and liquid assets that are not issued by the counterparty itself (or one of its affiliates). In determining which noncash asset types are eligible, we will consider in particular the S&P Global Ratings credit rating on the asset and the classification of the asset type under liquidity coverage regulations for financial institutions. We will also consider other factors that may affect our view of the asset's liquidity. For example, for sovereign bonds, we would also consider whether the bond is issued in the sovereign's local currency, whether this is a reserve currency, and the depth of the market for the sovereign's issuances. We intend to publish, and update from time to time, a list of asset types that we consider to be eligible, as well as the market-value haircuts that we consider to be commensurate with each asset type.

54. Derivatives in structured finance transactions typically include unilateral collateral posting: The counterparty may be required to post collateral to the issuer, depending on the calculation of the collateral-posting amount, but the issuer does not post collateral to the counterparty, regardless of the calculation of the collateral-posting amount. When a derivative contract requires the issuer to post collateral to the counterparty, we will apply our criteria for assessing special-purpose vehicle margin requirements for swaps to assess the issuer's provisions for posting collateral (see Related Criteria And Research section).
Covered Bonds

Covered bond programs may be exposed to similar forms of counterparty risk as structured finance issues, such as derivatives that hedge interest rates or currency mismatches between assets and liabilities, accounts holding cash that belongs to the cover pool, or liquidity support mechanisms. Compared to structured finance issues, the holder of a covered bond benefits from dual recourse, first to the issuing bank and then to the cover pool assets. This recourse to the issuer is an additional factor to consider when assessing counterparty risk in covered bond programs. For simplicity, in these criteria, the terms "issuer" and "covered bond issuer" refer to a financial institution that sponsors a covered bond program, though the actual issuer may be a special-purpose entity or a specialized lender.

We will consider whether counterparties are related or unrelated to the covered bond issuer and how much this may influence the issuer's ability and willingness to manage counterparty risk before a default (see chart 8). A counterparty is related to a covered bond issuer when both entities belong to the same banking group, and either:

- The counterparty is a subsidiary of the issuer (or vice versa), and we assess the subsidiary as "core," "highly strategic," or "strategically important" to the parent according to group rating methodology; or

- Both the counterparty and issuer are subsidiaries of the same parent, and we assess them as "core," "highly strategic," or "strategically important" according to group rating methodology (see the Related Criteria And Research section).
In addition to the considerations regarding RCRs for counterparty risk in structured finance transactions, if we believe covered bonds would be protected in a resolution, we would typically expect that any instruments supporting them that are obligations of the issuing bank would also be protected. This is the case even if we consider that this obligation type would not be protected in the general sense. Therefore, the issuing bank’s RRL would be the applicable counterparty rating when assessing the counterparty risk to the covered bond program, in situations where the counterparty is related to the covered bond issuer. The RRL is our assessment of an issuer’s creditworthiness regarding its covered bonds and considers the treatment of covered bonds under the applicable bank resolution regime (see the covered bonds criteria article listed in Related Criteria And Research).
Nonderivative counterparty risk in covered bonds

Exposure types

58. We consider bank accounts held with counterparties unrelated to the covered bond issuer as "minimal" exposure. Given the dual-recourse nature of covered bonds, the risk relating to an account at an unrelated bank should only adversely affect a covered bond rating if multiple events occur, such as the simultaneous failures of the bank account provider and the issuer.

Remedy actions

59. Bank account risk in covered bonds may also be mitigated through additional remedy actions, such as through additional collateral provided by the issuer or the issuer's commitment to increase the cover pool's overcollateralization to cover this amount, if its rating falls below the minimum level commensurate with the rating on the covered bond.

60. As for structured finance issues, covered bond ratings reflect the securities' exposure to nonderivative counterparty risk and any mitigating factors we consider under these criteria. However, because the bonds are dual-recourse, our counterparty analysis of nonderivative exposures does not generally lead us to rate covered bonds lower than a floor that is the higher of the issuer's RRL or the applicable counterparty rating under these criteria.

61. If a bank account or commingling risk exposure is with an entity that is unrelated to the issuer, we believe the issuer has an incentive to manage the exposure to such a counterparty (e.g., moving its accounts and notifying borrowers to redirect payments to a higher-rated institution if the original counterparty's credit quality has deteriorated). Because the issuer has an incentive to manage the risk, we believe the risk does not reduce the likelihood of jurisdictional support to the covered bond program, as defined in our covered bonds criteria. In this situation, bank account or commingling risk does not constrain the covered bond rating below a rating floor, which is the higher of the RRL on the issuer plus one notch, the jurisdiction-supported rating level on the covered bond program, or the applicable counterparty rating under these criteria.

Derivative counterparty risk in covered bonds

62. Relative to our analysis of derivative counterparty risk for structured finance securities, our analysis of derivative counterparty risk in covered bonds considers the following additional factors:

- The covered bond issuer's RRL: the higher the RRL, the greater the issuer's ability to mitigate counterparty risk, in our view;
- Whether the counterparty is related to the covered bond issuer: If the counterparty is unrelated to the issuer, there are two parties (the issuer and the counterparty) that may support a replacement framework; and
- Whether the exposure to counterparties that are unrelated to the covered bond issuer is concentrated or diversified: If the exposure to unrelated counterparties is diversified, the issuer's ability to manage counterparty risks is enhanced, in our view, due to the possible availability of existing counterparties to act as replacements to a downgraded counterparty.

63. The driving consideration of the derivative analysis in covered bonds is that the combination of these factors may support a higher rating for a covered bond program with derivative counterparty risk, relative to a structured finance security, if certain conditions are met.
64. Charts 9, 10, and 11 set out an overview of the analysis of derivative counterparty risk in covered bonds and reference the applicable tables that provide the maximum supported rating outcomes in each case.

Chart 9

Overview Of The Derivative Counterparty Risk Analysis In Covered Bonds

Does the derivative include a collateral framework that we consider to be legally enforceable?

Yes

Is the derivative counterparty related to the covered bond issuer?

No

Apply the approach to unrelated derivative counterparties described in this section.

Chart 10

Yes

Are derivative termination payments subordinated to covered bond payments?

No

Apply the same approach as for structured finance securities.

Chart 4

Yes

Apply the approach to related counterparties with senior termination payments described in this section.

Chart 11

Note: The covered bond rating may exceed the maximum supported rating for a given derivative counterparty(ies) if the cumulative total exposure (based on notional amount) to counterparties that support lower ratings does not exceed 5% of the balance of outstanding covered bonds.

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65. Similar to our approach to derivative counterparty risk in structured finance transactions, if termination payments are subordinated to covered bond payments upon the default of the counterparty, we may perform a cash flow analysis simulating the default of a derivative counterparty (i.e., running the transaction cash flows without the benefit of the hedge) to determine the hypothetical unhedged rating. The maximum supported rating would then be no lower than this hypothetical unhedged rating, plus an uplift dependent on the collateral framework assessment:

- Three notches for "strong."
- Two notches for "adequate."
One notch for "moderate."

- No uplift for "weak."

66. The uplift based on the collateral framework assessment allows us to differentiate a truly unhedged transaction from one benefiting from a collateralized derivative, where the absence or weakness of the replacement framework would otherwise constrain the rating. For the avoidance of doubt, this provision cannot lead to a final covered bond rating that exceeds the rating supported by our analysis of the transaction cash flows, with the benefit of the relevant hedge.

Unrelated counterparties

67. Chart 10 sets out how we determine the maximum supported rating if a derivative counterparty is not related to the covered bond issuer. It also highlights the applicable table based on the available remedies, as well as the ranking of termination payments.

Chart 10

Derivative Counterparty Risk Analysis In Covered Bonds, Steps 3 And 4 For Counterparties Unrelated To The Covered Bond Issuer

- Step 3: Determine the maximum supported rating on the covered bonds for each counterparty.

- Overall considerations
  - Covered bond issuer’s RRL
  - Concentration of unrelated derivative counterparty exposures
  - Ranking of termination payments

- Counterparty-specific considerations
  - Available downgrade remedies, such as the counterparty’s replacement commitment and/or collateral posting
  - Counterparty rating

Maximum supported rating determined from the relevant table, based on the available downgrade remedies:

Applicable table:

- Subordinated term payments: table 8
- Senior term payments: table 9

Counterparty commits to replace itself if downgraded below a minimum eligible counterparty rating:

Counterparty has failed to replace itself following a downgrade, but the issuer has the option to terminate the derivative as a result of this failure:

Counterparty does not commit to a replacement framework, or this framework does not meet the standards defined in these criteria:

Step 4: The maximum supported rating for each counterparty is the higher of:
- The rating outcome in the relevant table, and
- The issuer’s RRL + 1 notch.

RRL—Reference rating level.
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If a derivative counterparty is not related to the covered bond issuer, we consider that the collateral framework assessment is at least "moderate" if the derivative agreement includes an industry-standard collateral framework (e.g., an ISDA CSA) that we consider to be legally enforceable. This means that we do not assess asset eligibility criteria or market-value or currency haircuts to support a "moderate" collateral framework assessment but would analyze these factors to support a higher assessment.

**Related counterparties with senior termination payments**

For derivatives with counterparties that are related to the covered bond issuer, we generally apply the same methodology as for assessing derivative counterparty risk in other structured finance securities. However, if termination payments rank senior following an ATE or the counterparty’s default, we consider that this may represent a lesser risk factor than for structured finance securities. At higher covered bond issuer rating levels, the impact of the senior ranking of the termination payments is offset by the issuer's incentive to support the covered bond program and its potential ability to provide an alternative remedy--such as increased credit enhancement--if it cannot replace itself once downgraded below the minimum eligible counterparty rating.

Chart 11 sets out our analysis for derivatives with senior termination payments with counterparties that are related to the covered bond issuer.
APPENDIXES

Appendix 1: Adjusting The Maximum Supported Rating To Reflect Senior Termination Payments

If termination payments rank senior, then the maximum supported rating will generally be lower than if the termination payments were subordinated. The maximum supported ratings are shown in tables 6 and 7. In some cases, a 'AAA' rating may be supported, based on a higher replacement trigger than would support a 'AAA' rating if termination payments were subordinated.
Table 6
Maximum Rating Supported By The Combination Of Replacement Commitment And Collateral Posting

If termination payments are senior

<table>
<thead>
<tr>
<th>Replacement trigger</th>
<th>&quot;Strong&quot; collateral</th>
<th>&quot;Adequate&quot; collateral</th>
<th>&quot;Moderate&quot; collateral</th>
<th>&quot;Weak&quot; collateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA+</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA-</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>A+</td>
<td>AAA</td>
<td>AAA</td>
<td>AA+</td>
<td>AA</td>
</tr>
<tr>
<td>A</td>
<td>AA+</td>
<td>AA</td>
<td>AA-</td>
<td>A+</td>
</tr>
<tr>
<td>A-</td>
<td>AA</td>
<td>AA-</td>
<td>AA+</td>
<td>A</td>
</tr>
<tr>
<td>BBB+</td>
<td>A+</td>
<td>A</td>
<td>A-</td>
<td>BBB+</td>
</tr>
<tr>
<td>BBB</td>
<td>A-</td>
<td>BBB</td>
<td>BBB</td>
<td>BBB</td>
</tr>
<tr>
<td>BBB-</td>
<td>BBB+</td>
<td>BBB</td>
<td>BBB-</td>
<td>BBB-</td>
</tr>
</tbody>
</table>

Floor to supported rating
Counterparty rating + 1 notch

Counterparty rating

Counterparty rating

Counterparty rating

Maximum supported rating is equal to the floor above in the following cases

Replacement trigger at 'BB+' or below

Replacement commitment does not meet minimum standard

No replacement commitment

Table 7
Senior Termination Payments: Notch Uplift For Ratings Supported By Collateral Posting Framework And The Issuer's Right To Terminate The Derivative

<table>
<thead>
<tr>
<th>Strength of collateral framework</th>
<th>Uplift above counterparty rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Strong&quot;</td>
<td>Two notches</td>
</tr>
<tr>
<td>&quot;Adequate&quot;</td>
<td>One notch</td>
</tr>
<tr>
<td>&quot;Moderate&quot; or &quot;weak&quot;</td>
<td>No uplift</td>
</tr>
</tbody>
</table>

Appendix 2: Tables For Determining The Maximum Supported Rating For Derivative Counterparties In Covered Bond Programs
Counterparties unrelated to the covered bond issuer

We differentiate the maximum supported rating by assessing the concentration of exposures to derivative counterparties unrelated to the covered bond issuer (see tables 8, 9, 10, and 11). We generally consider that counterparty exposures are concentrated if there is exposure to a single counterparty for which the total net notional amount is greater than 25% of the total net notional amount of derivatives with unrelated counterparties. If no single counterparty concentration exceeds this 25% threshold, we consider the exposures to be diversified.

Table 8
Covered Bonds With Unrelated Derivative Counterparties: Maximum Rating Supported By The Combination Of Replacement And Collateral Posting

<table>
<thead>
<tr>
<th>Subordinated termination payments</th>
<th>Covered bond issuer RRL (concentrated/diversified)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A and above/A- and above</td>
</tr>
<tr>
<td></td>
<td>A-/ BBB+</td>
</tr>
<tr>
<td></td>
<td>BBB+/ BBB</td>
</tr>
<tr>
<td></td>
<td>BBB and below/BBB- and below</td>
</tr>
<tr>
<td>Replacement trigger (applicable counterpart rating)</td>
<td>&quot;Strong&quot; collateral framework</td>
</tr>
<tr>
<td>A and above</td>
<td>AAA</td>
</tr>
<tr>
<td>A-</td>
<td>AAA</td>
</tr>
<tr>
<td>BBB+</td>
<td>AAA</td>
</tr>
<tr>
<td>BBB</td>
<td>AAA</td>
</tr>
<tr>
<td>BBB-</td>
<td>AA+</td>
</tr>
<tr>
<td>Subject to minimum uplift above counterparty rating</td>
<td>3 notches</td>
</tr>
<tr>
<td>&quot;Strong&quot; collateral framework</td>
<td>&quot;Adequate&quot; collateral framework</td>
</tr>
<tr>
<td>&quot;Moderate&quot; collateral framework</td>
<td></td>
</tr>
</tbody>
</table>

RRL--Reference rating level.
### Table 9

**Covered Bonds With Unrelated Derivative Counterparties: Maximum Rating Supported By The Combination Of Replacement And Collateral Posting**

<table>
<thead>
<tr>
<th>Senior termination payments</th>
<th>Covered bond issuer RRL (concentrated/diversified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement trigger (applicable counterparty rating)</td>
<td>A and above/ A- and above</td>
</tr>
</tbody>
</table>

**"Strong" collateral framework**

<table>
<thead>
<tr>
<th>Rating</th>
<th>A-</th>
<th>A</th>
<th>A+</th>
<th>A</th>
<th>BBB+</th>
<th>BBB</th>
<th>BBB-</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA-</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>A+</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>A</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AA+</td>
<td>AA</td>
<td>A</td>
<td>A+</td>
</tr>
<tr>
<td>BBB+</td>
<td>AAA</td>
<td>AA+</td>
<td>AA+</td>
<td>AA-</td>
<td>A</td>
<td>BBB</td>
<td>BBB</td>
</tr>
<tr>
<td>BBB</td>
<td>AA+</td>
<td>AA-</td>
<td>A</td>
<td>A</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
</tr>
<tr>
<td>BBB-</td>
<td>AA-</td>
<td>A</td>
<td>BBB</td>
<td>BBB</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
</tr>
</tbody>
</table>

Subject to minimum uplift above counterparty rating:
- "Strong" collateral framework: 3 notches
- "Moderate" collateral framework: 2 notches
- "Adequate" collateral framework: 1 notch

**"Moderate" collateral framework**

<table>
<thead>
<tr>
<th>Rating</th>
<th>A-</th>
<th>A</th>
<th>A+</th>
<th>A</th>
<th>AAA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>AA-</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>A+</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td>A</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AA+</td>
<td>AA-</td>
</tr>
<tr>
<td>BBB+</td>
<td>AAA</td>
<td>AA</td>
<td>A+</td>
<td>A-</td>
<td>BBB</td>
</tr>
<tr>
<td>BBB</td>
<td>AA+</td>
<td>AA-</td>
<td>A</td>
<td>BBB</td>
<td>BBB</td>
</tr>
<tr>
<td>BBB-</td>
<td>AA-</td>
<td>A</td>
<td>BBB</td>
<td>BBB</td>
<td>BBB</td>
</tr>
</tbody>
</table>

Subject to minimum uplift above counterparty rating:
- "Moderate" collateral framework: 1 notch
- "Adequate" collateral framework: 0 notches
- "Strong" collateral framework: 0 notches

RRL--Reference rating level.
Table 10

Covered Bonds With Unrelated Counterparties: Supported Uplift Above The Counterparty Rating

Based on the collateral-posting framework and the issuer’s right to terminate following a failure to replace

<table>
<thead>
<tr>
<th>Ranking of termination payments</th>
<th>Covered bond issuer RRL (concentrated/diversified)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A and above/ A- and above</td>
</tr>
<tr>
<td>&quot;Strong&quot; collateral framework</td>
<td>Subordinated</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
</tr>
<tr>
<td>&quot;Adequate&quot; collateral framework</td>
<td>Subordinated</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
</tr>
<tr>
<td>&quot;Moderate&quot; collateral framework</td>
<td>Subordinated</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
</tr>
</tbody>
</table>

RRL—Reference rating level.

Table 11

Covered Bonds With Unrelated Counterparties: Supported Uplift Above The Counterparty Rating

Based on the collateral-posting framework only

<table>
<thead>
<tr>
<th>Ranking of termination payments</th>
<th>Covered bond issuer RRL (concentrate/diversified)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A and above/ A- and above</td>
</tr>
<tr>
<td>&quot;Strong&quot; collateral framework</td>
<td>Subordinated</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
</tr>
<tr>
<td>&quot;Adequate&quot; collateral framework</td>
<td>Subordinated</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
</tr>
<tr>
<td>&quot;Moderate&quot; collateral framework</td>
<td>Subordinated</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
</tr>
</tbody>
</table>

RRL—Reference rating level.

Counterparties related to the covered bond issuer with senior termination payments

Table 12 shows the maximum supported rating in these cases as a function of the covered bond...
issuer’s RRL and the level of the replacement trigger if the derivative agreement includes a counterparty replacement commitment with a replacement trigger of at least ‘BBB.’ In other cases, the maximum supported rating for a counterparty related to the issuer with senior termination payments would be the same as for a structured finance transaction.

Table 12
Covered Bonds With A Related Counterparty: Maximum Rating Supported If Termination Payments Rank Senior

<table>
<thead>
<tr>
<th>Replacement trigger (issuer RRL)</th>
<th>A+ and above</th>
<th>A</th>
<th>A-</th>
<th>BBB+</th>
<th>BBB</th>
<th>BBB-</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Strong&quot; collateral framework</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A and above</td>
<td>AAA</td>
<td>AAA</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A-</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BBB+</td>
<td>AAA</td>
<td>AAA</td>
<td>AA+</td>
<td>AA</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BBB</td>
<td>AA</td>
<td>AA-</td>
<td>A+</td>
<td>A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>&quot;Adequate&quot; collateral framework</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A and above</td>
<td>AAA</td>
<td>AAA</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A-</td>
<td>AAA</td>
<td>AAA</td>
<td>AA+</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BBB+</td>
<td>AA</td>
<td>AA-</td>
<td>AA-</td>
<td>AA</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BBB</td>
<td>A+</td>
<td>A</td>
<td>A</td>
<td>A-</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>&quot;Moderate&quot; collateral framework</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A and above</td>
<td>AAA</td>
<td>AAA</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A-</td>
<td>AAA</td>
<td>AA+</td>
<td>AA</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BBB+</td>
<td>AA-</td>
<td>AA-</td>
<td>A+</td>
<td>A+</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BBB</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A-</td>
<td>BBB+</td>
<td>N/A</td>
</tr>
<tr>
<td>&quot;Weak&quot; collateral framework</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+ and above</td>
<td>AAA</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A</td>
<td>AA</td>
<td>AA</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A-</td>
<td>AA-</td>
<td>AA-</td>
<td>AA-</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BBB+</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BBB</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB</td>
<td>N/A</td>
</tr>
</tbody>
</table>

RRL—Reference rating level. N/A—Not applicable.

IMPACT ON OUTSTANDING RATINGS
These criteria apply to approximately 38,000 ratings across approximately 10,000 transactions. We have analyzed the expected impact on outstanding ratings, based on current counterparty exposure information for a representative sample of transactions globally. Based on the changes relative to our previous criteria, we expect the largest impact in European structured finance transactions. We expect that we may upgrade our ratings on tranches within approximately 10% to 15% of European structured finance transactions by up to three notches, in situations where current ratings are constrained by a counterparty’s rating (with one- or two-notch upgrades more
common than three-notch upgrades). We also expect that we may downgrade our ratings on tranches within approximately 5% to 10% of European structured finance transactions by two or three notches. These potential downgrades may affect tranche ratings in transactions supported by derivatives that either hedge currency risk, or allow for currency risk on posted collateral, in the specific circumstances explained in the following paragraph and further detailed in the guidance article published alongside these criteria. In other regions, we expect that the impact will be limited to transactions that include cross-currency derivatives, where we may downgrade ratings by two or three notches (or maintain current ratings, depending on our assessment of the documented downgrade remedies).

75. Specifically, we summarize below how we currently expect each key change, relative to our previous criteria, to affect our outstanding ratings:

- The consideration of RCRs as the applicable counterparty rating, where relevant, will not affect ratings currently supported by a counterparty's commitment to implement downgrade remedies. It may positively affect ratings that are currently limited by a counterparty's ICR.

- The uplift above the rating of a derivative counterparty, based on an analysis of its collateral-posting framework, may lead to upgrades, as our previous criteria only considered collateral in combination with the counterparty's replacement framework. This may affect ratings that are currently limited by the rating of a derivative counterparty, either because the counterparty has not committed to replace itself, because the documentation of its commitment does not reflect the considerations in our criteria, or the counterparty has failed to replace itself after a downgrade. This could lead to upgrades of up to three notches.

- The changes to the calibration of derivative collateral volatility buffers will not affect ratings on transactions that rely on derivatives to hedge interest rate risk. This is because the volatility buffers for such derivatives that we consider to be commensurate with a 'AAA' rating are lower than under our previous criteria.

- The changes to the calibration of derivative collateral volatility buffers may negatively affect certain ratings on transactions that rely on derivatives to hedge foreign exchange risk. Relative to our previous criteria, we have increased some of the volatility buffers that we consider to be commensurate with a 'AAA' rating for derivatives that have a fixed-floating or floating-floating interest rate profile (transactions supported by fixed-fixed derivatives would not be affected because the volatility buffers are lower than those under our previous criteria). This change could lead to downgrades of one to three notches.

- The changes to the calibration of derivative collateral volatility buffers may also affect the maximum supported rating, in cases where documented volatility buffers support ratings below 'AAA' under our previous criteria. This impact may lead to upgrades or downgrades of generally up to two notches. We expect this to affect only a marginal number of transactions; typically, when volatility buffers have been documented in existing transactions, these have been calibrated to support 'AAA' ratings under our previous criteria.

- The changes to the calibration of currency haircuts on derivative collateral may lead to downgrades of up to two notches, on 'AAA' transactions with interest rate derivatives where the counterparty may post collateral in a different currency to that of its obligation, if the counterparty applies a minimum eligible counterparty rating of 'BBB+' to support a 'AAA' rating on the securities. This is because the currency haircuts to support a "strong" collateral assessment are calibrated to cover a 90-day exposure period, whereas the haircuts under our previous criteria were calibrated to cover a five-business-day exposure period. We do not expect this change to affect 'AAA' ratings on transactions with interest rate derivatives with a minimum eligible counterparty rating above 'BBB+' because we consider that the change to
currency haircuts is offset by the recalibration of volatility buffer amounts, described above. We also do not expect any rating impact from changes to our market-value haircut assumptions or collateral asset eligibility criteria—for the same reason.

- For nonderivative counterparty exposure types, the changes relative to our previous criteria are limited. We expect only a marginal impact, where counterparty exposures were classified as "direct (substantial)" obligations under our previous criteria. Under these criteria, these exposures may be classified as "limited" (leading to a potential upgrade of up to three notches) or "too material to be mitigated through downgrade remedies" (leading to a potential downgrade of up to two notches). We estimate that this aspect is relevant to the analysis of fewer than 1% of structured finance transactions.

- The impact of changes to our analysis of counterparty risk in covered bonds are broadly neutral. We expect that approximately 2% of covered bond programs may be downgraded by one notch. These programs may be affected by the treatment of derivatives with termination payments that are not subordinated to covered bond payments in a counterparty default scenario. Under our previous criteria, a material rating adjustment was applied for this risk factor if the covered bond issuer’s reference rating level (RRL) is lowered below 'bbb'. Under these criteria, the corresponding adjustment applies gradually as the issuer RRL decreases and begins to apply at issuer RRLs below 'a'.

- We expect the changes relative to our previous criteria to affect only a marginal number of ratings (if any) on corporate or government issues that are in scope of these criteria.

The above information is intended to serve as a broad, directional guide to the possible ratings impact as we apply these criteria to outstanding ratings. Ultimately, actual ratings impact may vary depending on the specifics and structural features of a particular transaction. In situations where currently committed downgrade remedies would no longer support the current rating under these criteria, we note that counterparties may seek to amend their commitment to continue to support the current rating. In particular, for a derivative counterparty where the applicable replacement option under the prior criteria would no longer support the current rating, the counterparty may seek to switch the applicable replacement option to continue to support the current rating.

RELATED CRITERIA AND RESEARCH

Criteria To Be Fully Superseded

- Counterparty Risk Analysis In Covered Bonds, Dec. 21, 2015
- Stressing Foreign Currency Risk In Unhedged Or Partially Hedged Structured Finance Transactions, Sept. 23, 2013
- Counterparty Risk Framework Methodology And Assumptions, June 25, 2013

Criteria To Be Partially Superseded

- Methodology And Assumptions For Market Value Securities, Sept. 17, 2013
Related Criteria

- Methodology For Assigning Financial Institution Resolution Counterparty Ratings, April 19, 2018
- Special-Purpose Vehicle Margin Requirements For Swaps--Methodology And Assumptions, Oct. 10, 2017
- Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Structured Finance: Asset Isolation And Special-Purpose Entity Methodology, March 29, 2017
- Guarantee Criteria, Oct. 21, 2016
- Ratings Above The Sovereign – Structured Finance: Methodology And Assumptions, Aug. 8, 2016
- Covered Bonds Criteria, Dec. 9, 2014
- Counterparty Risk In Terminating Transactions, Aug. 15, 2014
- Group Rating Methodology, Nov. 19, 2013
- Global Derivative Agreement Criteria, June 24, 2013
- Derivative Product Companies Rating Methodology And Assumptions, March 22, 2013
- Criteria Methodology Applied To Fees, Expenses, And Indemnifications, July 12, 2012
- Principles Of Credit Ratings, Feb. 16, 2011
- Methodology: Credit Stability Criteria, May 3, 2010
- Understanding S&P Global Ratings’ Rating Definitions, June 3, 2009

Related Research

- Guidance: Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019
- Assessing Credit Quality By The Weakest Link, Feb. 13, 2012

These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as S&P Global Ratings assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment.

This report does not constitute a rating action.