

Criteria | Structured Finance | General:

Counterparty Risk Framework: Methodology And Assumptions

March 8, 2019

(Editor's Note: On July 27, 2023, we republished this criteria article to make nonmaterial changes, including those related to the archival of "Guidance: Counterparty Risk Framework: Methodology And Assumptions," published March 8, 2019. See the "Revisions And Updates" section for details.)

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 counterparties in project finance transactions, other than deferred funding providers during construction works and bank account providers, which are covered in the project finance criteria (see "Related Publications"). 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.
- These criteria address counterparty risk, as set out in "Principles Of Credit Ratings," Feb. 16, 2011.

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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.

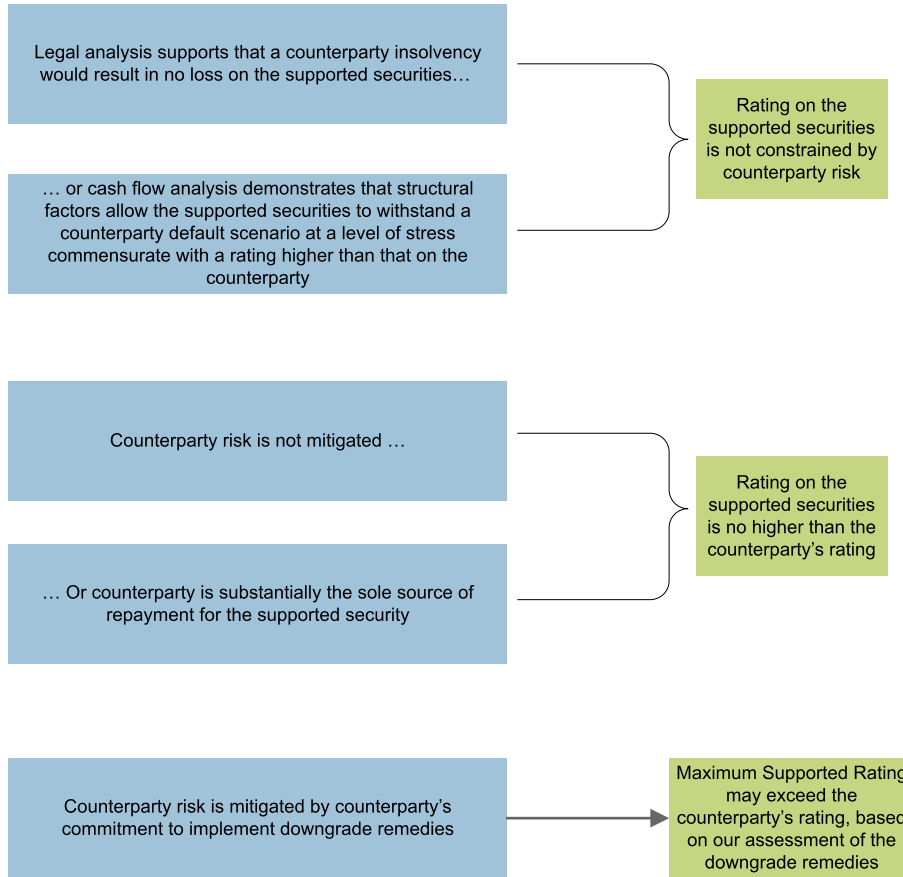
4. Counterparty risk is an important consideration in assessing the creditworthiness of structured finance and covered bond securities. Our analysis of counterparty risk focuses on third-party obligations to either hold assets (including cash) or make financial payments that support the instrument's 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



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- 8. 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.
- 9. 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 reasonable 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

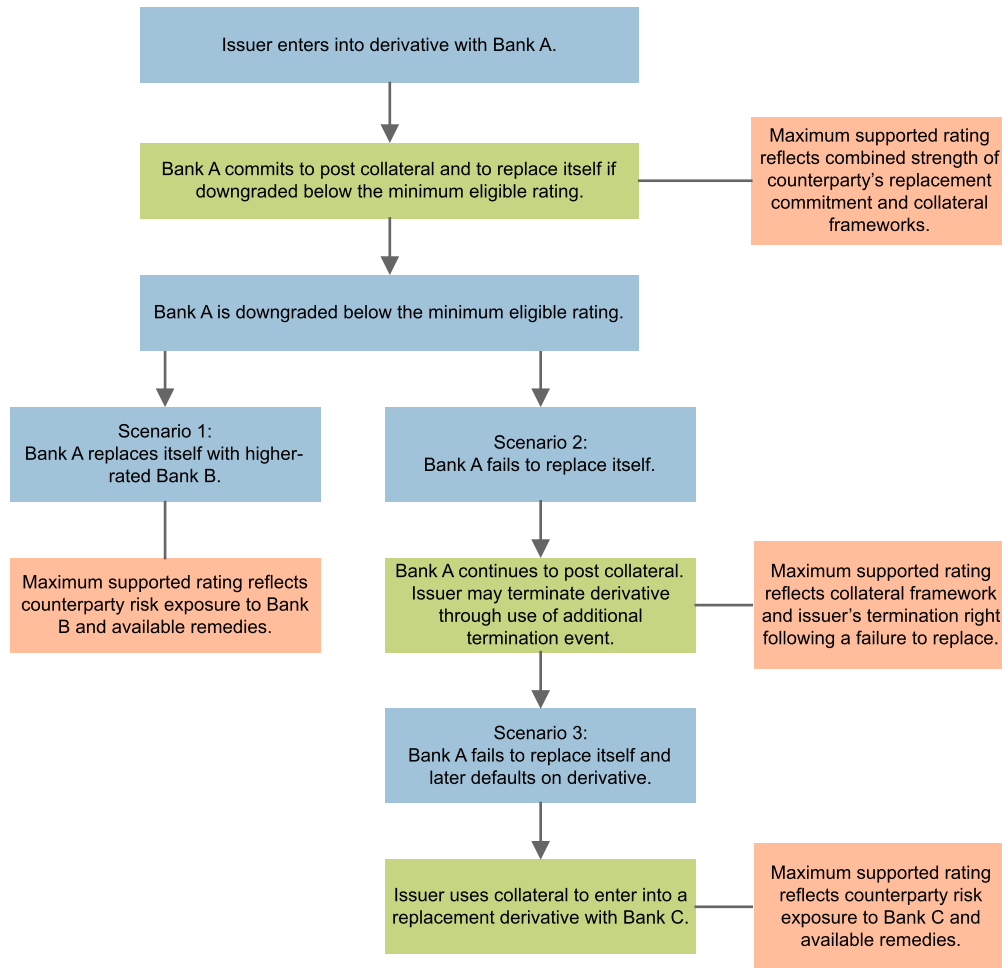
| Minimum eligible counterparty rating | Maximum supported rating | |
|--------------------------------------|--------------------------|---------------------|
| | Limited exposure | Minimal exposure |
| A and above | AAA | AAA |
| A- | AA | AAA |
| BBB+ | A+ | AAA |
| BBB | A | AAA |
| BBB- | A- | AA- |
| BB+ | BBB- | A- |
| BB | BB | BBB |
| BB- and below | Counterparty rating | Counterparty rating |

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 re hedge 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.

Chart 2

Illustration Of Our Counterparty Risk Analysis Through The Lifecycle Of A Typical Structured Finance Derivative

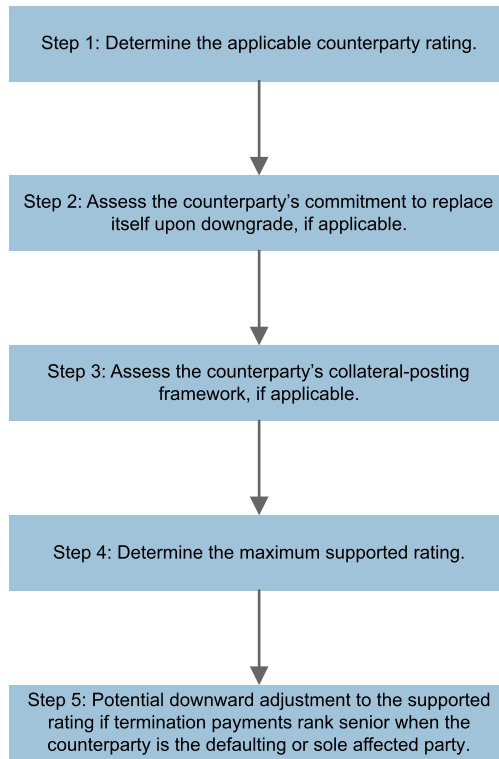


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30. Charts 3 and 4 show the steps of our derivative counterparty risk analysis, illustrating how we assess available remedies and determine the maximum supported rating.
31. Table 2 illustrates the maximum rating supported by the combination of replacement 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.

Chart 3

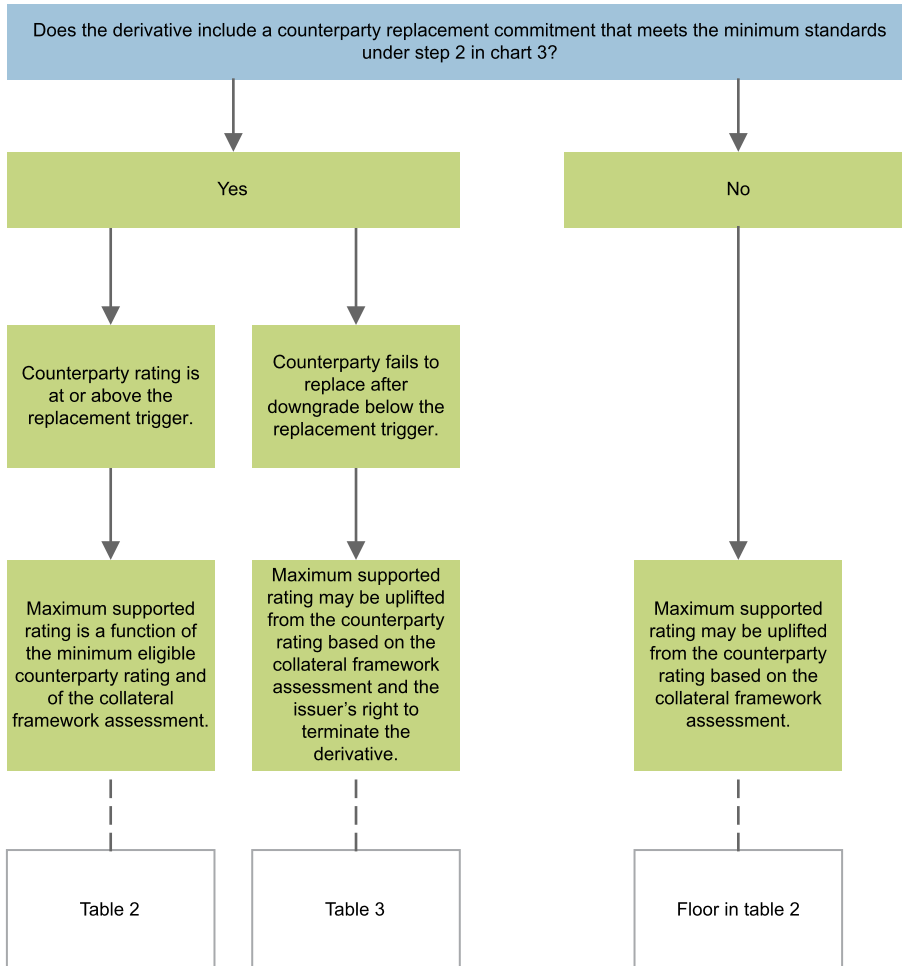
Steps To Determine The Maximum Supported Rating



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Chart 4

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



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Table 2

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

If termination payments are subordinated

| | Maximum supported rating | | | |
|----------------------------|---------------------------------|---------------------------------|-------------------------------|---------------------|
| | "Strong" collateral | "Adequate" collateral | "Moderate" collateral | "Weak" collateral |
| Replacement trigger | | | | |
| AAA | AAA | AAA | AAA | AAA |
| AA+ | AAA | AAA | AAA | AAA |
| AA | AAA | AAA | AAA | AAA |
| AA- | AAA | AAA | AAA | AAA |
| A+ | AAA | AAA | AAA | AAA |
| A | AAA | AAA | AAA | AA |
| A- | AAA | AAA | AA+ | AA- |
| BBB+ | AAA | AA | AA- | A |
| BBB | AA | A+ | A | BBB+ |
| BBB- | A+ | A- | BBB+ | BBB- |
| 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

| Strength of collateral framework | Uplift above counterparty rating |
|----------------------------------|----------------------------------|
| "Strong" | Five notches |
| "Adequate" | Three notches |
| "Moderate" | Two notches |
| "Weak" | No uplift |

32. 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

assessment:

- Three notches for "strong."
- Two notches for "adequate."
- One notch for "moderate."
- No uplift for "weak."

33. 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.
34. 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

35. 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).
36. 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

37. 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.

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We consider that the applicability to the counterparty of the "breach of agreement" event of default supports this timely enforceability;

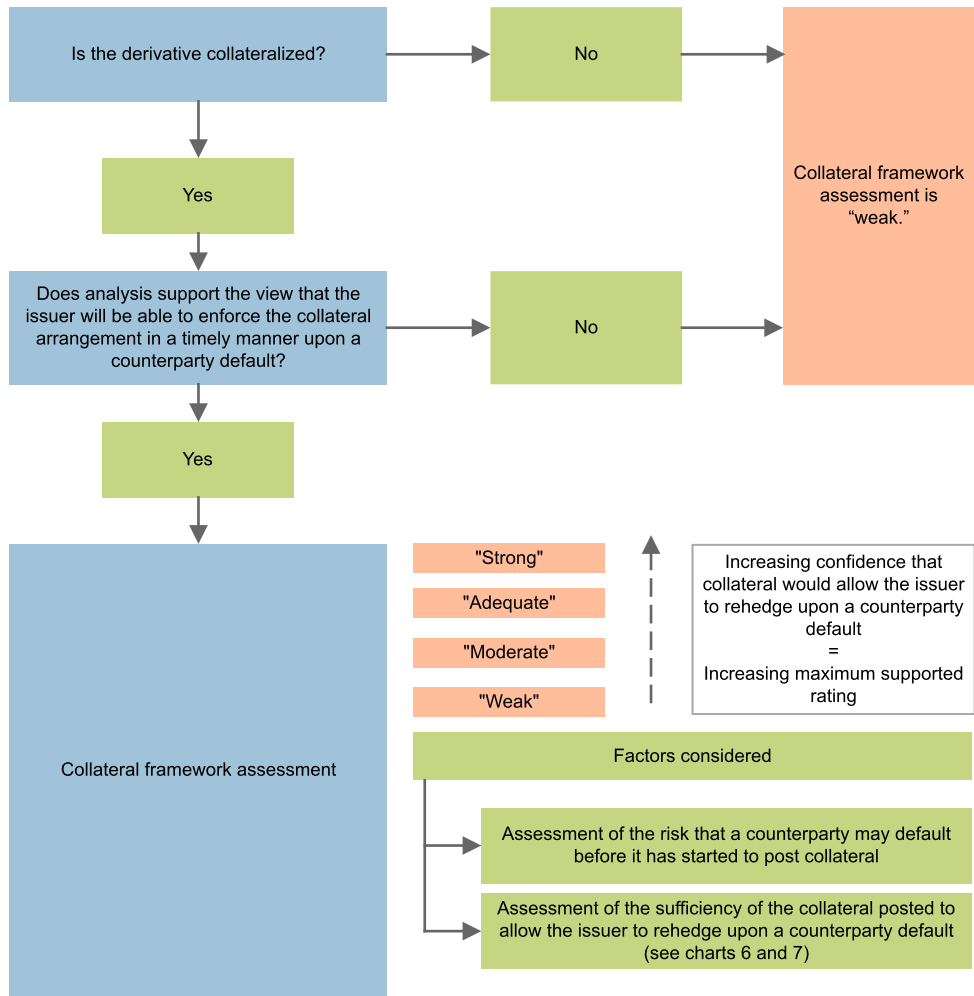
- A contractual remedy period no longer than 90 calendar days, or, if the remedy period is not quantified, it is defined as "as soon as reasonably practicable" (or similar language; in this case we also consider that a counterparty has failed to replace if it has not done so within 90 calendar days of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



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Table 4

Collateral Posting Framework Assessments Summary

| | Collateral framework ranking | | | |
|---|--|--|--|---|
| | Strong | Adequate | Moderate | Weak |
| Counterparty rating below which posting is initiated* | 'A-' | 'BBB' | 'BBB' | Does not meet all conditions for "moderate" |
| Remedy period to begin collateral posting (if applicable) | 10 business days following downgrade of counterparty | 10 business days following downgrade of counterparty | 10 business days following downgrade of counterparty | Does not meet all conditions for "moderate" |
| Revaluation of collateral | At least weekly | At least weekly | At least weekly | Does not meet all conditions for "moderate" |
| Coverage of the issuer's exposure to the counterparty | Posting of mark-to-market | Posting of mark-to-market | Posting of mark-to-market | Does not meet all conditions for "moderate" |
| Coverage of volatility risk in the swap value | "Strong" volatility buffers | "Adequate" volatility buffers | No volatility buffers | Does not meet all conditions for "moderate" |
| Assets eligible as collateral | Cash; Eligible assets listed in Appendix 5 | Cash; Eligible assets listed in Appendix 5 | Cash; Eligible assets listed in Appendix 5 | Does not meet all conditions for "moderate" |
| Coverage of market value risk on collateral assets (if non-cash assets are posted) | "Strong" market value haircuts | "Adequate" market value haircuts | "Moderate" market value haircuts | Does not meet all conditions for "moderate" |
| Coverage of currency risk on collateral assets (if currency mismatch exists between collateral and currency needed for replacement) | "Strong" currency haircuts | "Adequate" currency haircuts | "Moderate" currency haircuts | Does not meet all conditions for "moderate" |

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

40. **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 re hedge its exposure.
41. 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 re hedge its exposure in a timely manner.
42. 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

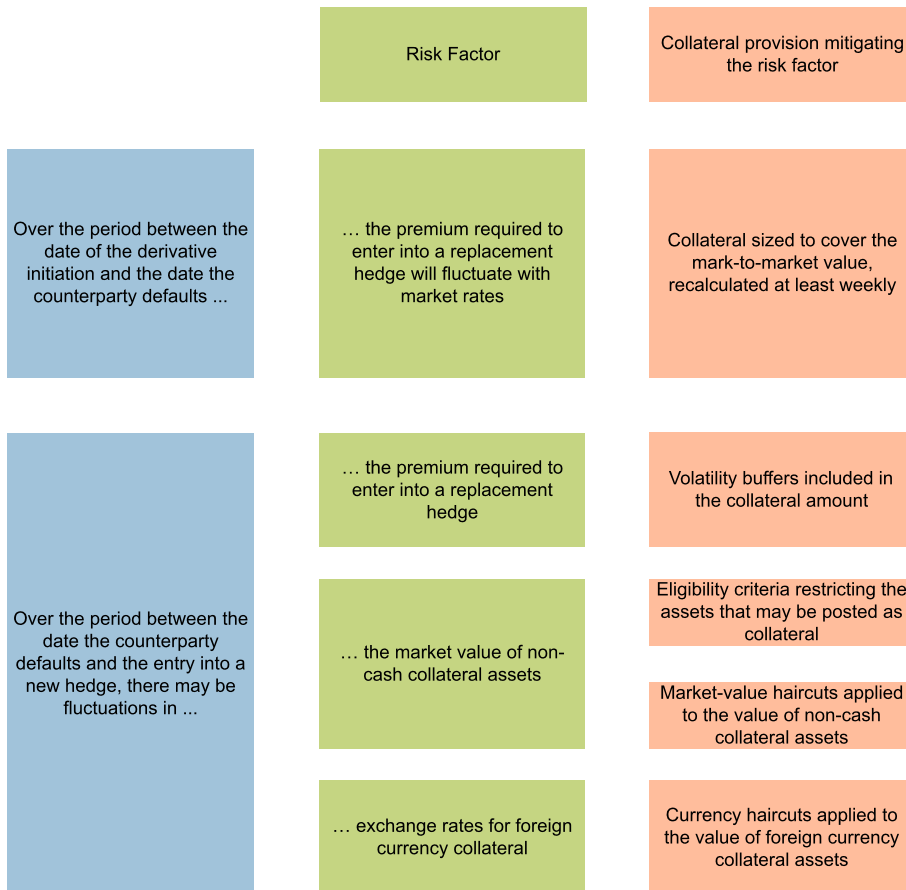
46. Typically, counterparties will either begin to post collateral upon entering into a derivative agreement or will begin to post collateral when the counterparty is downgraded below a specified rating (the collateral-posting trigger). In order to support an assessment better than "weak," the counterparty 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

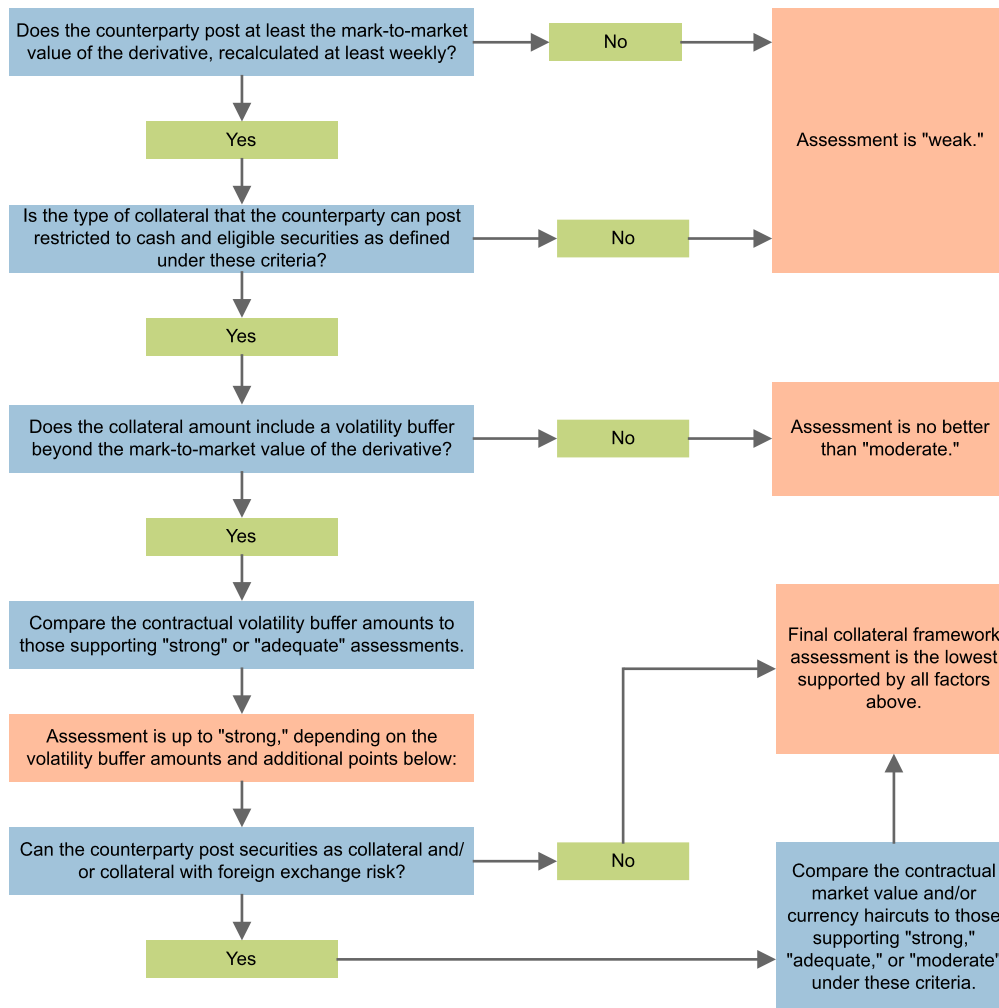
Assessment Of The Sufficiency Of The Collateral Posted to Allow The Issuer To Rehedge Upon A Counterparty Default



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Chart 7

Collateral Framework Assessment Based On The Sufficiency Of The Collateral Amount



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48. 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 Appendix 5 (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;

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- 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 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

As a % of the derivative notional amount

| Remaining Weighted-average life of swap (years)(i) | Volatility buffers supporting a "strong" collateral framework | | | Volatility buffers supporting an "adequate" collateral framework | | |
|---|---|--|------------------------|--|--|------------------------|
| | Interest rate swap--fixed-floating | Interest rate swap--floating-floating | Cross-currency swap | Interest rate swap--fixed-floating | Interest rate swap--floating-floating | Cross-currency swap |
| [0;1] | 2.0 | 2.0 | 14.0 | 1.0 | 1.0 | 6.0 |
| (1;2] | 4.0 | 2.5 | 14.5 | 2.0 | 1.0 | 6.0 |
| (2;3] | 6.0 | 2.5 | 14.5 | 2.5 | 1.0 | 6.0 |
| (3;5] | 8.5 | 3.0 | 15.0 | 3.5 | 1.5 | 7.0 |
| (5;7] | 10.0 | 3.5 | 16.5 | 4.0 | 2.0 | 7.5 |
| (7;10] | 12.0 | 4.0 | 18.0 | 5.0 | 2.0 | 7.5 |
| (10;15] | 14.0 | 4.5 | 21.0 | 6.0 | 3.0 | 8.0 |
| (15;20] | 14.5 | 5.0 | 22.5 | 6.5 | 3.5 | 9.0 |
| Greater than 20 | 15.0 | 5.5 | 24.0 | 7.0 | 4.0 | 10.0 |

(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.

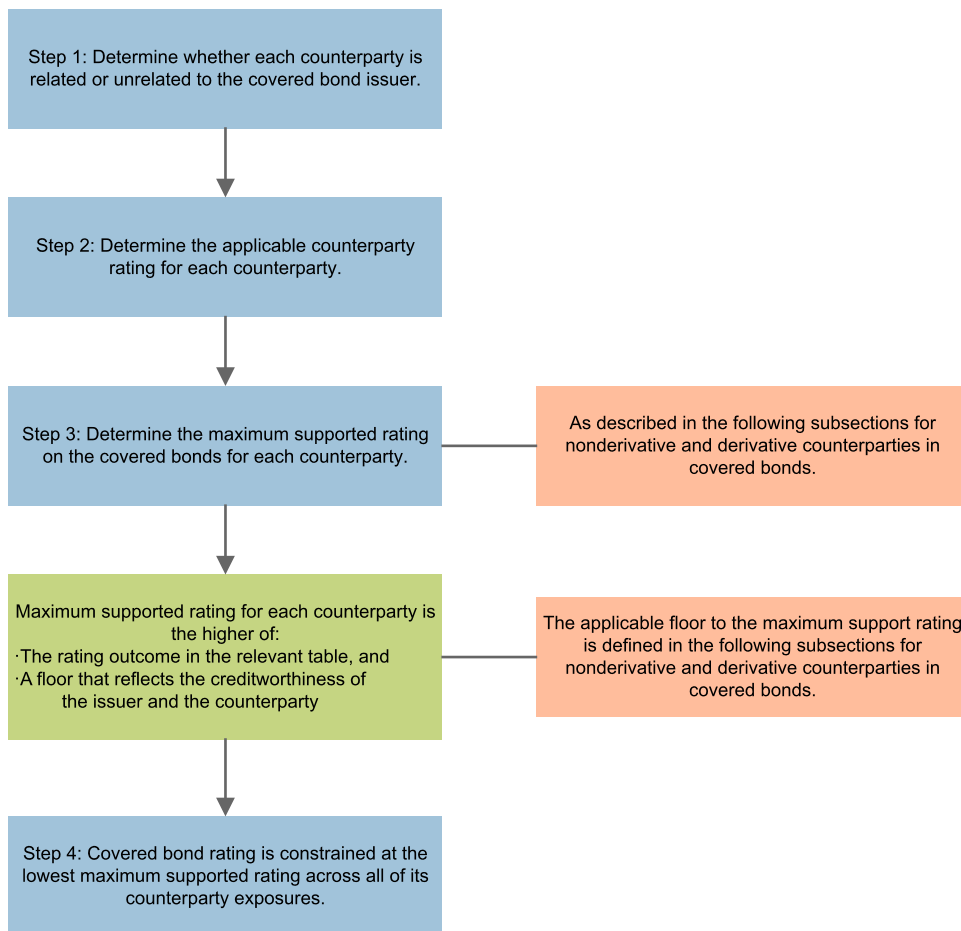
53. To support a collateral framework assessment better than "weak," the posted collateral should be limited to cash and/or high-credit-quality and liquid assets that are not issued by the counterparty itself (or one of its affiliates). In determining which noncash asset types are eligible, we will consider 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 include in Appendix 5 (and may 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

55. 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.
56. 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).

Chart 8

Overview Of The Counterparty Risk Analysis For Covered Bonds



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Applicable counterparty rating

57. 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

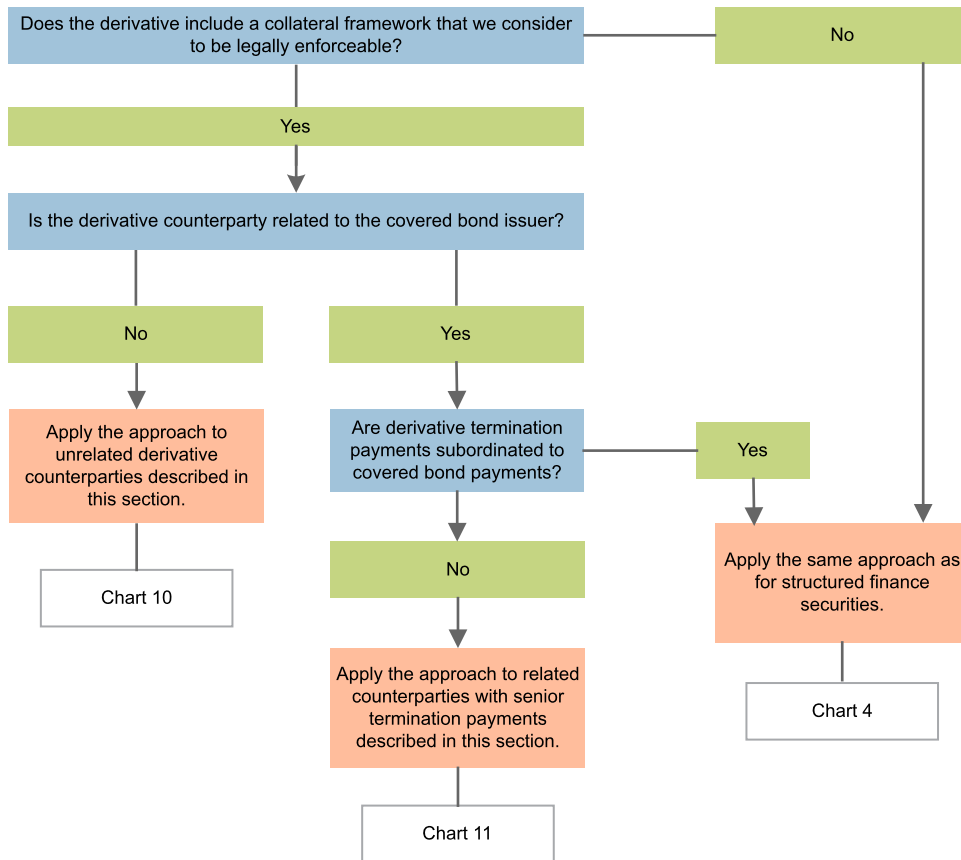
62. Relative to our analysis of derivative counterparty risk for structured finance securities, our analysis of derivative counterparty risk in covered bonds considers the following additional factors:
- The covered bond issuer's RRL: the higher the RRL, the greater the issuer's ability to mitigate counterparty 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.

Criteria Structured Finance General: Counterparty Risk Framework: Methodology And Assumptions

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



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."

Criteria Structured Finance General: Counterparty Risk Framework: Methodology And Assumptions

- One notch for "moderate."
- No uplift for "weak."

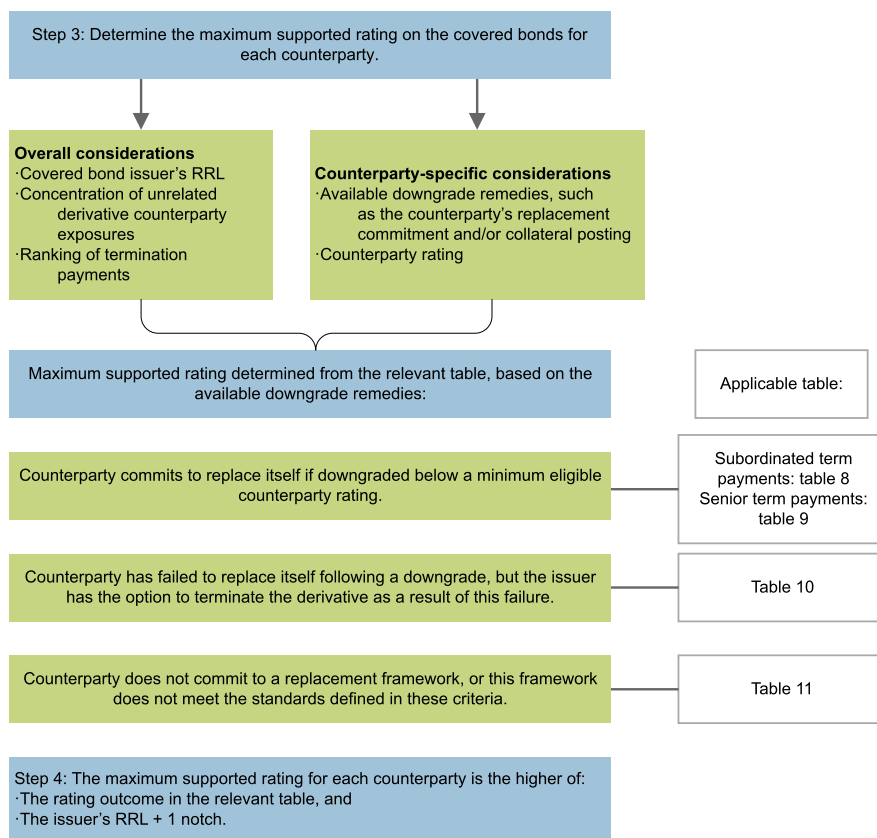
66. The uplift based on the collateral framework assessment allows us to differentiate a truly unhedged transaction from one benefiting from a collateralized derivative, where the absence or weakness of the replacement framework would otherwise constrain the rating. For the avoidance of doubt, this provision 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



RRL--Reference rating level.

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68. 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

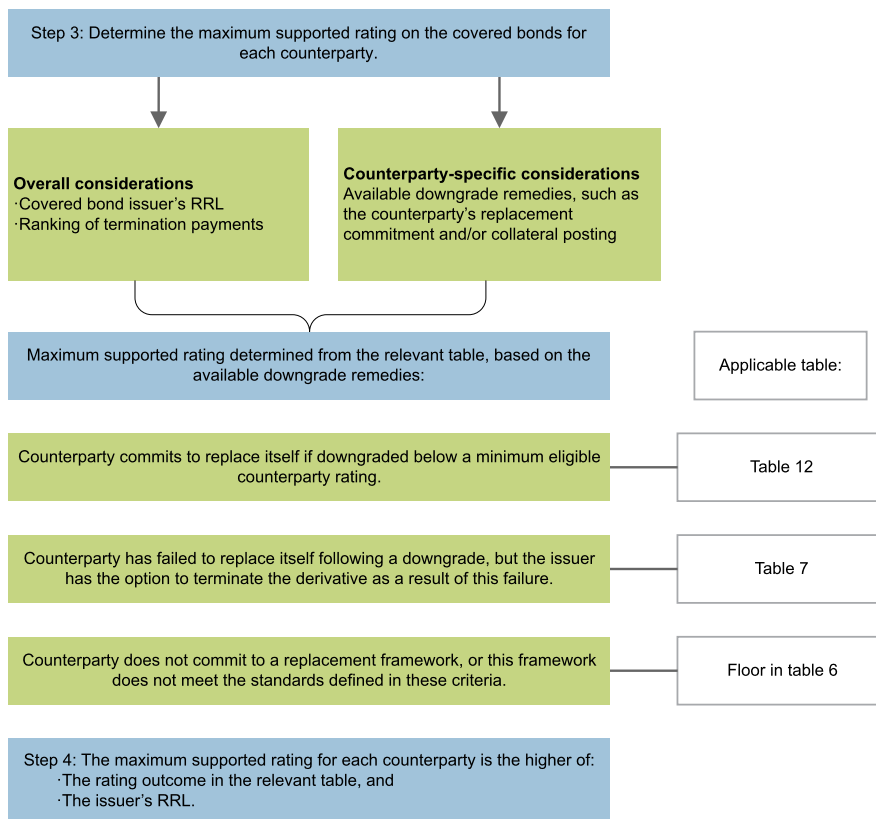
industry-standard collateral framework (e.g., an ISDA CSA) that we consider to be legally enforceable. This means that we do not assess asset eligibility criteria or market-value or currency haircuts to support a "moderate" collateral framework assessment but would analyze these factors to support a higher assessment.

Related counterparties with senior termination payments

- 69. 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.
- 70. Chart 11 sets out our analysis for derivatives with senior termination payments with counterparties that are related to the covered bond issuer.

Chart 11

Derivative Counterparty Risk Analysis In Covered Bonds, Steps 3 And 4 For Counterparties Related To A Covered Bond Issuer With Senior Termination Payments



RRL--Reference rating level.

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APPENDIXES

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

71. 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

| | Maximum supported rating | | | |
|----------------------------|-------------------------------|-----------------------|-----------------------|---------------------|
| | "Strong" collateral | "Adequate" collateral | "Moderate" collateral | "Weak" collateral |
| Replacement trigger | | | | |
| AAA | AAA | AAA | AAA | AAA |
| AA+ | AAA | AAA | AAA | AAA |
| AA | AAA | AAA | AAA | AAA |
| AA- | AAA | AAA | AAA | AA+ |
| A+ | AAA | AAA | AA+ | AA |
| A | AA+ | AA | AA- | A+ |
| A- | AA | AA- | A+ | A |
| BBB+ | A+ | A | A- | BBB+ |
| BBB | A- | BBB+ | BBB | BBB |
| BBB- | BBB+ | BBB | BBB- | BBB- |
| 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

| Strength of collateral framework | Uplift above counterparty rating |
|----------------------------------|----------------------------------|
| "Strong" | Two notches |
| "Adequate" | One notch |
| "Moderate" or "weak" | No uplift |

Appendix 2: Tables For Determining The Maximum Supported Rating For Derivative Counterparties In Covered Bond Programs

Counterparties unrelated to the covered bond issuer

72. 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

Subordinated termination payments

| Replacement trigger (applicable counterparty rating) | Covered bond issuer RRL (concentrated/diversified) | | | |
|--|--|-----------|-----------|-------------------------------|
| | A and above/ A- and above | A-/ BBB+ | BBB+/ BBB | BBB and below/ BBB- and below |
| "Strong" collateral framework | | | | |
| A and above | AAA | AAA | AAA | AAA |
| A- | AAA | AAA | AAA | AAA |
| BBB+ | AAA | AAA | AAA | AAA |
| BBB | AAA | AAA | AA+ | AA |
| BBB- | AA+ | AA | AA- | A+ |
| Subject to minimum uplift above counterparty rating | 3 notches | 3 notches | 3 notches | 3 notches |
| "Adequate" collateral framework | | | | |
| A and above | AAA | AAA | AAA | AAA |
| A- | AAA | AAA | AAA | AAA |
| BBB+ | AAA | AAA | AA+ | AA |
| BBB | AAA | AA+ | AA | A+ |
| BBB- | AA+ | AA | A+ | A- |

Table 8

Covered Bonds With Unrelated Derivative Counterparties: Maximum Rating Supported By The Combination Of Replacement And Collateral Posting (cont.)

Subordinated termination payments

| Replacement trigger (applicable counterparty rating) | Covered bond issuer RRL (concentrated/diversified) | | | |
|--|--|-----------|-----------|-------------------------------|
| | A and above/ A- and above | A-/ BBB+ | BBB+/ BBB | BBB and below/ BBB- and below |
| Subject to minimum uplift above counterparty rating | 3 notches | 2 notches | 2 notches | 2 notches |
| "Moderate" collateral framework | | | | |
| A and above | AAA | AAA | AAA | AAA |
| A- | AAA | AAA | AA+ | AA+ |
| BBB+ | AAA | AA+ | AA | AA- |
| BBB | AAA | AA | A+ | A |
| BBB- | AA+ | AA- | A | BBB+ |
| Subject to minimum uplift above counterparty rating | 3 notches | 2 notches | 1 notch | 1 notch |

RRL--Reference rating level.

Table 9

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

Senior termination payments

| Replacement trigger (applicable counterparty rating) | Covered bond issuer RRL (concentrated/diversified) | | | |
|--|--|-----------|-----------|-------------------------------|
| | A and above/ A- and above | A-/ BBB+ | BBB+/ BBB | BBB and below/ BBB- and below |
| "Strong" collateral framework | | | | |
| AA and above | AAA | AAA | AAA | AAA |
| AA- | AAA | AAA | AAA | AAA |
| A+ | AAA | AAA | AAA | AAA |
| A | AAA | AAA | AAA | AA+ |
| A- | AAA | AAA | AA+ | AA |
| BBB+ | AAA | AA+ | AA | A+ |
| BBB | AAA | AA | A+ | A- |
| BBB- | AA+ | AA- | A | BBB+ |
| Subject to minimum uplift above counterparty rating | 3 notches | 2 notches | 2 notches | 1 notch |
| "Adequate" collateral framework | | | | |
| AA and above | AAA | AAA | AAA | AAA |
| AA- | AAA | AAA | AAA | AAA |
| A+ | AAA | AAA | AAA | AAA |
| A | AAA | AAA | AA+ | AA |

Table 9

Covered Bonds With Unrelated Derivative Counterparties: Maximum Rating Supported By The Combination Of Replacement And Collateral Posting (cont.)

Senior termination payments

| Replacement trigger (applicable counterparty rating) | Covered bond issuer RRL (concentrated/diversified) | | | |
|--|--|-----------|-----------|-------------------------------|
| | A and above/ A- and above | A-/ BBB+ | BBB+/ BBB | BBB and below/ BBB- and below |
| A- | AAA | AA+ | AA | AA- |
| BBB+ | AAA | AA+ | AA- | A |
| BBB | AAA | AA | A+ | BBB+ |
| BBB- | AA+ | AA- | A | BBB |
| Subject to minimum uplift above counterparty rating | 2 notches | 1 notch | 1 notch | 0 notches |
| "Moderate" collateral framework | | | | |
| AA and above | AAA | AAA | AAA | AAA |
| AA- | AAA | AAA | AAA | AAA |
| A+ | AAA | AAA | AAA | AA+ |
| A | AAA | AA+ | AA | AA- |
| A- | AAA | AA | AA- | A+ |
| BBB+ | AAA | AA | A+ | A- |
| BBB | AAA | AA | A | BBB |
| BBB- | AA+ | AA- | A- | BBB- |
| Subject to minimum uplift above counterparty rating | 1 notch | 0 notches | 0 notches | 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

| Ranking of termination payments | Covered bond issuer RRL (concentrated/diversified) | | | |
|--|--|-----------|-----------|-------------------------------|
| | A and above/ A- and above | A-/ BBB+ | BBB+/ BBB | BBB and below/ BBB- and below |
| "Strong" collateral framework | | | | |
| Subordinated | 5 notches | 5 notches | 5 notches | 5 notches |
| Senior | 5 notches | 4 notches | 3 notches | 2 notches |
| "Adequate" collateral framework | | | | |
| Subordinated | 5 notches | 4 notches | 3 notches | 3 notches |
| Senior | 3 notches | 2 notches | 2 notches | 1 notch |
| "Moderate" collateral framework | | | | |
| Subordinated | 5 notches | 4 notches | 3 notches | 2 notches |

Table 10

Covered Bonds With Unrelated Counterparties: Supported Uplift Above The Counterparty Rating (cont.)

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

| Ranking of termination payments | Covered bond issuer RRL (concentrated/diversified) | | | |
|---------------------------------|--|----------|-----------|-------------------------------|
| | A and above/ A- and above | A-/ BBB+ | BBB+/ BBB | BBB and below/ BBB- and below |
| Senior | 2 notches | 1 notch | 1 notch | 0 notches |

RRL--Reference rating level.

Table 11

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

Based on the collateral-posting framework only

| Ranking of termination payments | Covered bond issuer RRL (concentrate/diversified) | | | |
|--|---|-----------|-----------|-------------------------------|
| | A and above/ A- and above | A-/ BBB+ | BBB+/ BBB | BBB and below/ BBB- and below |
| "Strong" collateral framework | | | | |
| Subordinated | 3 notches | 3 notches | 3 notches | 3 notches |
| Senior | 3 notches | 2 notches | 2 notches | 1 notch |
| "Adequate" collateral framework | | | | |
| Subordinated | 3 notches | 2 notches | 2 notches | 2 notches |
| Senior | 2 notches | 1 notch | 1 notch | 0 notches |
| "Moderate" collateral framework | | | | |
| Subordinated | 3 notches | 2 notches | 1 notch | 1 notch |
| Senior | 1 notch | 0 notches | 0 notches | 0 notches |

RRL--Reference rating level.

Counterparties related to the covered bond issuer with senior termination payments

73. 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

| Replacement trigger (issuer RRL) | Issuer RRL | | | | | |
|--|--------------|------|------|------|------|------|
| | A+ and above | A | A- | BBB+ | BBB | BBB- |
| "Strong" collateral framework | | | | | | |
| A and above | AAA | AAA | N/A | N/A | N/A | N/A |
| A- | AAA | AAA | AAA | N/A | N/A | N/A |
| BBB+ | AAA | AAA | AA+ | AA | N/A | N/A |
| BBB | AA | AA | AA- | A+ | A | N/A |
| "Adequate" collateral framework | | | | | | |
| A and above | AAA | AAA | N/A | N/A | N/A | N/A |
| A- | AAA | AAA | AA+ | N/A | N/A | N/A |
| BBB+ | AA | AA | AA- | AA- | N/A | N/A |
| BBB | A+ | A+ | A | A | A- | N/A |
| "Moderate" collateral framework | | | | | | |
| A and above | AAA | AAA | N/A | N/A | N/A | N/A |
| A- | AA+ | AA+ | AA | N/A | N/A | N/A |
| BBB+ | AA- | AA- | A+ | A+ | N/A | N/A |
| BBB | A | A | A- | A- | BBB+ | N/A |
| "Weak" collateral framework | | | | | | |
| A+ and above | AAA | N/A | N/A | N/A | N/A | N/A |
| A | AA | AA | N/A | N/A | N/A | N/A |
| A- | AA- | AA- | AA- | N/A | N/A | N/A |
| BBB+ | A | A | A | A | N/A | N/A |
| BBB | BBB+ | BBB+ | BBB+ | BBB+ | BBB | N/A |

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

- 74. This paragraph has been deleted.
- 75. This paragraph has been deleted.
- 76. This paragraph has been deleted.

Appendix 3: Detailed Considerations For All Counterparty Types

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

- 77. 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

78. 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.
79. 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.
80. 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

81. 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 (regardless of a replacement language being implemented). 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, including consideration of any credit enhancement that may be available to the issuer upon the counterparty's default.
 - 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

82. 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.
83. 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.

84. We will consider that the issuer is not exposed to the counterparty risk of the relevant depository 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 depository institution. We may also conclude that this counterparty risk is mitigated--even 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 depository institution on the uninsured amount.
85. 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

86. 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.
87. 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.
88. 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.
89. 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

90. 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

91. The criteria contemplate that we may determine the applicable counterparty rating using "Group Rating Methodology," published July 1, 2019. 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.

Appendix 4: Detailed Considerations For Nonderivative Counterparties

Covering the cost of implementing downgrade remedies

92. 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 "Global Framework For Payment Structure And Cash Flow Analysis Of Structured Finance Securities," published Dec. 22, 2020.

Classifying counterparty exposures as "minimal" or "limited"

93. 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.
94. 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.
95. 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

96. 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."
97. 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.
98. 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

99. 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 13 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 13

Typical Classification Of Exposures To Bank Account Providers

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

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

100. For accounts in transactions secured by assets not covered in table 13 above or by assets listed in table 13, 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.
101. 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

102. 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.
103. 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

104. 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.
105. 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 or resolution, where applicable, and any amounts that may be paid to the servicer following its insolvency or resolution. 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 or resolution, we may consider any legal or operational factors that mitigate this risk, such as any automatic redirection of payments, and the regulatory environment in which the servicer operates.

106. For example, if the servicer is a bank and we believe that in case of financial difficulties it is unlikely the regulator will follow a liquidation strategy, then we may consider that only collections accumulated at the time of resolution would be subject to bail-in and lost, while any collections received post-resolution would be processed normally. 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.
107. In assessing the amount of potential commingling loss, we may consider the likelihood of a special administrator being appointed in order to provide for an orderly liquidation of the servicer, such as for entities subject to prudential regulation and supervision, which may provide time for transaction participants to take action to limit the amount of commingling loss.

Classifying exposures as "minimal" or "limited"

108. 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.
109. 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

110. 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.
111. 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.
112. 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.

Appendix 5: Detailed Considerations For Derivative Counterparties

Analysis of the enforceability of the collateral arrangement

113. 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.
114. 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.
115. 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

116. 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;
 - China;
 - Denmark;
 - Finland;
 - France;
 - Germany;
 - Hong Kong;

- Japan;
- Netherlands;
- Norway;
- Singapore;
- South Korea;
- Sweden;
- Switzerland;
- The U.K.; and
- The U.S.

117. 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

118. 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 14 and 15.

Table 14

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

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

(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 15

Currency Haircuts Commensurate With Each Collateral Framework Assessment

| "Strong" | "Adequate" or "moderate" |
|-----------------|---------------------------------|
| 20% | 8% |

119. Currently, eligible currencies for posting collateral and that are consistent with the haircuts set out in table 15 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;
- Chinese renminbi; 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

120. 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

121. 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.
122. **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).
123. 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).
124. 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

125. 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

126. 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.
127. 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.
128. Table 16 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.
129. This comparison of the total collateral amount means that a shortfall in one of the assumptions

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(such as market-value or currency haircuts) may be offset by an excess in another (such as the documented volatility buffer assumptions).

130. Note that for our analysis of counterparty risk in covered bonds, the maximum supported rating levels indicated in table 16 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 16 are relevant for both related and unrelated counterparties, regardless of the ranking of termination payments.

Table 16

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

| | Replacement option under our 2013 counterparty criteria | | | |
|---|--|---|---|---|
| | Option 1 | Option 2 | Option 3 | Option 4 |
| Interest rate swaps | If collateral can only be posted in the currency of the counterparty's obligation: Collateral framework assessment is "strong." Supports 'AAA' under current criteria. If collateral can be posted in a different currency to that of the counterparty's obligation: Collateral framework assessment is "adequate." Supports 'AA' under current criteria. | Collateral framework assessment is "adequate." Supports 'AAA' under current criteria. | Collateral framework assessment is "moderate." Supports 'AAA' under current criteria. | Collateral framework assessment is "weak." Supports 'AAA' under current criteria. |
| Cross-currency swaps--fixed-floating | Collateral framework assessment is "adequate," supporting 'AA' under current criteria. A "strong" assessment, supporting 'AAA' under current criteria, may be supported if the counterparty can only post collateral in the currency of its obligation, depending on the maturity of the swap. | Collateral framework assessment is "adequate." Supports 'AAA' under current criteria. | Collateral framework assessment is "moderate." Supports 'AAA' under current criteria. | Collateral framework assessment is "weak." Supports 'AAA' under current criteria. |
| Cross-currency swaps--floating-floating | Collateral framework assessment is "adequate" or "moderate" depending on maturity. Supports 'AA-' or 'AA' under current criteria. | Collateral framework assessment is "moderate." Supports 'AA+' under current criteria. | Collateral framework assessment is "moderate." Supports 'AAA' under current criteria. | Collateral framework assessment is "weak." Supports 'AAA' under current criteria. |

Table 16

Mapping Of 'AAA' Replacement Options In 2013 Criteria To Maximum Supported Rating Outcomes Under Current Criteria (cont.)

| | Replacement option under our 2013 counterparty criteria | | | |
|-----------------------------------|---|---|---|---|
| | Option 1 | Option 2 | Option 3 | Option 4 |
| Cross-currency swaps--fixed-fixed | Collateral framework assessment is "strong." Supports 'AAA' under current criteria. | Collateral framework assessment is "adequate." Supports 'AAA' under current criteria. | Collateral framework assessment is "moderate." Supports 'AAA' under current criteria. | Collateral framework assessment is "weak." Supports 'AAA' under current criteria. |

¹³¹. 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 16 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.

REVISIONS AND UPDATES

This article was originally published on March 8, 2019.

Changes introduced after original publication:

- On May 18, 2020, we republished this criteria article to make nonmaterial changes. We updated certain criteria references, removed a reference to the effective date, and removed the "Impact On Outstanding Ratings" section.
- On April 28, 2021, we republished this criteria article to make nonmaterial changes to references to the related criteria and research articles.
- On Dec. 16, 2021, we republished this criteria article to make nonmaterial changes to references to related criteria and research articles.
- On Dec. 14, 2022, we republished this criteria article to make nonmaterial changes in connection with the publication of "Project Finance Rating Methodology," which covers the analysis of specific financial counterparties in project finance transactions. As a result, we reduced the scope of this article by excluding in paragraph 2 those financial counterparties in case of project finance transactions. We also updated references to related criteria and contact details.
- On July 27, 2023, we republished this criteria article to make nonmaterial changes. As announced in "Evolution Of The Methodologies Framework: Introducing Sector And Industry Variables Reports," Oct. 1, 2021, we are phasing out guidance documents over time. As part of

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that process, we have archived "Guidance: Counterparty Risk Framework: Methodology And Assumptions," published March 8, 2019. We moved the relevant guidance content to the criteria with limited changes. Specifically, we moved guidance content to new Appendices 3 to 5. The only substantive changes to the guidance content were the addition of China as an eligible sovereign issuer and the Chinese renminbi as an eligible currency for posting collateral, in Appendix 5. We also clarified in Appendix 3, example 2, that for derivative counterparties, we would consider credit enhancement available to the issuer in case of default. And in Appendix 4, we clarified that our analysis of structural mitigants to commingling risk also takes into account the regulatory framework. In addition, we updated references in the criteria text and updated the "Related Publications" section.

RELATED PUBLICATIONS

Superseded Criteria

- 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

Partly Superseded Criteria

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

Related Criteria

- General Project Finance Rating Methodology, Dec. 14, 2022
- Financial Institutions Rating Methodology, Dec. 9, 2021
- Global Framework For Payment Structure And Cash Flow Analysis Of Structured Finance Securities, Dec. 22, 2020
- Group Rating Methodology, July 1, 2019
- U.S. Structured Finance Asset Isolation And Special-Purpose Entity Criteria, May 15, 2019
- Incorporating Sovereign Risk In Rating Structured Finance Securities: Methodology And Assumptions, Jan. 30, 2019
- 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
- Covered Bonds Criteria, Dec. 9, 2014
- Counterparty Risk In Terminating Transactions, Aug. 15, 2014

Criteria Structured Finance General: Counterparty Risk Framework: Methodology And Assumptions

- Methodology Applied To Bank Branch-Supported Transactions, Oct. 14, 2013
- Global Derivative Agreement Criteria, June 24, 2013
- Derivative Product Companies Rating Methodology And Assumptions, March 22, 2013
- Principles Of Credit Ratings, Feb. 16, 2011

Related Sector And Industry Variables Reports And Guidance

- ARCHIVE: Guidance: Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019

Other Related Publications

- Evolution Of The Methodologies Framework: Introducing Sector And Industry Variables Reports, Oct. 1, 2021

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