

Criteria | Structured Finance | General:

Counterparty Risk Framework Methodology And Assumptions

June 25, 2013

(Editor's Note: This article, originally published June 25, 2013, has been superseded by "Counterparty Risk Framework: Methodology And Assumptions," March 8, 2019, except in markets that require prior notification to, and/or registration by, the local regulator. In these markets, the criteria outlined in the March 8, 2019, article will become effective when notified by S&P Global Ratings and/or registered by the regulator.)

1. These criteria address the counterparty risk principle described in "Principles Of Credit Ratings," published Feb. 16, 2011.
2. These criteria fully and partially supersede the criteria articles listed in Appendix 6, paragraph 132.

I. SCOPE OF THE CRITERIA

3. These criteria apply to:
 - All new and existing structured finance securities. Note that specific aspects of these criteria do not apply to asset-backed commercial paper (ABCP) programs, terminating synthetic transactions, or repackaged securities or securities collateralizing funded synthetic structures (all as outlined in paragraph 4);
 - Covered bonds, subject to and in conjunction with "Counterparty Risk Analysis In Covered Bonds," published December 21, 2015; and
 - Counterparties supporting corporate and government issues that possess structured finance characteristics (e.g., project finance transactions, catastrophe bonds, gas pre-pay financings, stand-alone tax-exempt single- and multifamily housing bonds, equipment trust certificates, municipal pools, industrial development bonds, etc.). However, see paragraph 25 for treatment of bank accounts.
4. These criteria do not apply to:
 - Structures involving credit substitution, in which a counterparty is intended to fully support repayment of the supported securities (e.g., fully supporting bond insurance policies, guarantees, letters of credit [LOCs]). Other criteria cover these forms of support.
 - Temporary investments or defeasance structures, which are covered by the "Global Investment Criteria For Temporary Investments In Transaction Accounts," published May 31, 2012, and "Methodology And Assumptions: Assigning Ratings To Bonds In The U.S. Based On Escrowed Collateral," published November 30, 2012.

PRIMARY CONTACTS

Andrew D Palmer
Melbourne
(61) 3-9631-2052
andrew.palmer
@spglobal.com

Herve-Pierre P Flammier
Paris
(33) 1-4420-7338
herve-pierre.flammier
@spglobal.com

Claire K Robert
Paris
(33) 1-4420-6681
claire.robert
@spglobal.com

SECONDARY CONTACTS

Takamasa Yamaoka
Tokyo
(81) 3-4550-8719
takamasa.yamaoka
@spglobal.com

Vera Chaplin
Melbourne
(61) 3-9631-2058
vera.chaplin
@spglobal.com

Philip A Baggaley, CFA
New York
(1) 212-438-7683
philip.baggaley
@spglobal.com

See complete contact list at end of article.

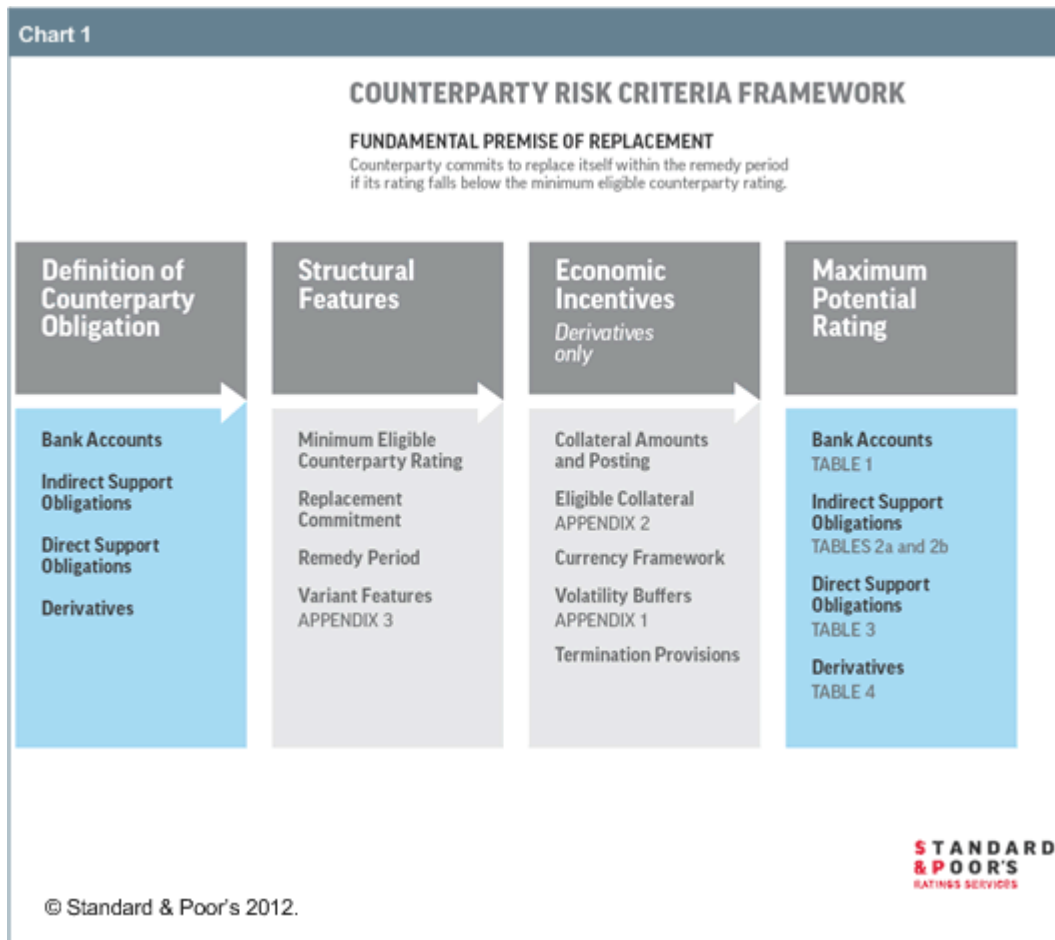
- Liquidity facilities, programwide credit enhancement, or derivative agreements in ABCP programs. Ratings assigned to ABCP programs and other securities with short-term ratings are typically linked to the lowest of the ratings assigned to any of the support providers (i.e., the "weak-link" approach; see "Assessing Credit Quality By The Weakest Link," published Feb. 13, 2012). This approach is consistent with the greater focus on liquidity and timeliness associated with our short-term ratings.
- All other aspects of terminating synthetic structures, with the exception of the minimum rating below which the counterparty posts the collateral amount to support full payment of interest and principal when the transaction terminates. The applicable minimum eligible counterparty ratings are set out in table 4, under replacement option 1 without collateral. Terminating synthetic structures, typically synthetic collateralized debt obligations (CDOs), are structures that usually require a termination event and consequently a mandatory redemption of the notes if a supporting counterparty were to default. Therefore, these structures typically do not incorporate a replacement framework for when the rating on a supporting counterparty falls below a certain minimum rating level. The specific criteria relating to amounts that need to be posted, legal opinions, and other relevant criteria (in particular for CDOs) are outlined in "Counterparty Risk In Terminating Transactions," published August 15, 2014.
- The securities collateralizing funded synthetic structures and repackaged securities (these are rated using the "weak-link" approach; see "Assessing Credit Quality By The Weakest Link," published Feb. 13, 2012). Furthermore, swaps in repackaged securities where the counterparty is covering more than interest rate or currency risk (i.e., the swap has elements of yield support, credit, or market value risk, e.g., the collateral is insufficient to meet all expenses of the special-purpose entity (SPE) and all timely payments of interest and principal) are also rated using the "weak-link" approach.

II. SUMMARY OF THE CRITERIA

5. The fundamental premise of Standard & Poor's counterparty criteria is the replacement of a counterparty when the rating on the counterparty falls below a minimum eligible rating. Based on this view, we can rate a supported security higher than the rating on the counterparty because exposure to a counterparty whose rating becomes ineligible is expected to be for a limited period of time. Without the incorporation of replacement mechanisms or equivalent remedies in the terms of the agreement with the counterparty, and if there are no other mitigating factors, the rating on the supported security would generally be no higher than the issuer credit rating (ICR) on the counterparty.
6. These criteria classify counterparty obligations into four categories: Bank accounts (part VII), indirect support obligations (part VIII), direct support obligations (part IX), and derivatives (part X). Criteria are set out under each of these four categories, including the relevant minimum eligible counterparty ratings, replacement commitments, remedy periods, and collateral requirements (if applicable) that apply to these obligations.
7. Certain obligations may have characteristics that fit the definition of more than one category of counterparty obligation. Where this is the case, the obligation is treated as a direct support obligation (part IX), unless the obligation fully meets the requirements of one of the other categories as outlined in parts VII, VIII, or X. (See table 14 in Appendix 5 for comparative minimum eligible counterparty ratings for nonderivative exposures and table 4 for minimum eligible counterparty ratings for derivatives by replacement option).
8. These criteria establish a link between a rating on a supported security and the minimum eligible counterparty rating for a specific counterparty obligation. See chart 1 for a summary of the

framework. In determining the minimum eligible counterparty rating with respect to a counterparty obligation, these criteria consider:

- The category and nature of the counterparty's obligation and its impact on the credit performance of supported securities;
- An obligation's structural features such as the commitment to replace or remedy, and termination provisions; and
- Economic incentives, such as the commitment to post collateral in a derivative obligation, that would increase the likelihood of a counterparty replacing itself.



9. If a rating on a counterparty falls below the minimum eligible counterparty rating for a specific obligation and the downgrade is not remedied, the ratings on supported securities will likely be lowered.

III. SUMMARY OF CRITERIA UPDATE

10. For a summary of how these criteria differ from "the Dec. 6, 2010 framework" (as defined in Appendix 6, paragraph 121), and the RFC ("Request For Comment: Counterparty And Supporting Obligations Methodology And Assumptions--Expanded Framework") published Nov. 21, 2011, see

Appendix 6.

IV. IMPACT ON OUTSTANDING RATINGS

11. This paragraph has been deleted.

V. EFFECTIVE DATE

12. The information in this paragraph has been moved to the "Revisions And Updates" section.

VI. METHODOLOGY AND ASSUMPTIONS: GENERAL

13. Counterparty risk is an important consideration in assessing the credit risk of structured finance and certain other securities. Cash received or collected from the underlying assets is typically deposited with or held by counterparties pending interest payment dates, and interruptions to accessing that cash may impede the issuer's ability to meet its payment obligations to supported securities in full or on time. Moreover, a variety of agreements may be entered into between the issuer and counterparties to enhance or otherwise transform the nature or timing of cash flows received from the underlying assets. A counterparty's failure to perform its obligations may lead to a downgrade of, or even payment default on, supported securities, notwithstanding the performance of the underlying assets.

A. Replacement Framework

14. The foundation of the counterparty criteria is the replacement of a counterparty when its creditworthiness deteriorates. A replacement framework is based on the replacement, or equivalent remedy, of a downgraded counterparty with another counterparty, whose rating would support the same rating on the security prior to the original counterparty's downgrade below its minimum eligible counterparty rating. If there are no other mitigating factors, the rating on a supported security would typically be no higher than the counterparty's ICR. These criteria assess a counterparty and its support obligation by considering, among other things, the nature of the obligation, the minimum eligible counterparty rating for replacement or other equivalent remedies, the commitment to remedy a breach of the minimum eligible rating, the remedy period, the issuer's rights, and—specifically for derivatives—the types of collateral that can be posted and the required collateral amount.
15. Given the bespoke nature of some counterparty obligations, even with a replacement framework in place, it is possible that a counterparty may not be able to replace itself when the need arises. If there are no other mitigating factors, and replacement has not occurred at all, we may lower the rating on the supported securities to the counterparty's ICR. Furthermore, if a counterparty is replaced but the rating on the replacement counterparty, or the terms in any new support documents, do not support the same rating on the security that existed before the replacement, then the rating on the supported security may be raised or lowered in accordance with these criteria.

B. Minimum Eligible Counterparty Rating

16. The minimum eligible counterparty rating is the rating level below which a counterparty commits (in the documentation) to replace itself and, in part, it determines the maximum potential rating on the supported securities. Once a counterparty is rated below the minimum eligible counterparty rating, it is considered ineligible for purposes of these criteria and its replacement commitment applies.
17. If a supported security has multiple rated tranches, then the minimum eligible counterparty rating is usually based on the most highly-rated tranche that benefits from the counterparty obligation.
18. The minimum eligible counterparty rating is expressed using the long-term ICR on the counterparty, or other applicable rating. These criteria apply only where the counterparty has a Standard & Poor's credit rating, either public or nonpublic (private or confidential). Counterparty ratings with a 'pi' suffix (i.e., "public information") are not eligible, nor are other types of opinions such as credit estimates and credit assessments. Where the counterparty does not have an applicable rating, we assess whether other mitigating factors (e.g., additional credit enhancement) address exposure to the counterparty.
19. For purposes of inferring a long-term minimum eligible rating for entities that have only short-term ratings, or in transactions where only short-term ratings on the counterparty are referenced, the following apply:
 - 'A-1+' corresponds to 'AA-'.
 - 'A-1' corresponds to 'A' for financial institutions, and 'A-' for all other entities.
 - 'A-2' corresponds to 'BBB'.
 - 'A-3' corresponds to 'BBB-'.
 - To meet the minimum eligible rating of 'A', the entity should also have a short-term rating of 'A-1'.
 - To meet the minimum eligible rating of 'BBB', the entity should also have a short-term rating of 'A-2'.

C. Failing To Implement Remedies

20. If a counterparty fails to perform or implement replacement remedies relating to a supported security, then ratings may be lowered on other supported securities with similar obligations from the same counterparty.

D. Variant Features

21. Appendix 3 summarizes the rating approach where counterparty obligations are documented in line with previous versions of Standard & Poor's counterparty criteria (but do not fully meet the current criteria). In most instances, each variation results in a notching down of the maximum potential rating that can be assigned on the supported security by up to three notches, depending on the feature (see table 11). The adjustments are cumulative for multiple variant features, subject to a floor of the counterparty's ICR plus one notch for any supported security that contains a replacement provision that is in line with previous versions of Standard & Poor's counterparty criteria. This approach is taken to appropriately reflect the relative creditworthiness of securities

that benefit from some form of replacement framework, compared with those that do not. Furthermore, for variants in derivative agreements, higher volatility buffers (see paragraph 114) and additional collateral amounts (see table 12) may apply.

E. Alternatives To Counterparty Criteria

22. Instead of these criteria:
- The counterparty may pledge collateral at issuance in an amount projected to fully cover the counterparty's payment obligations for the life of the supported security. In this case, the analytical considerations shift to the issuer's timely ability to access and liquidate the posted collateral under a market value liquidation framework (and include an assessment of the legal enforceability of the collateral in the appropriate jurisdiction).
 - Counterparty risk may be adequately mitigated by available credit enhancement within a transaction. For instance, credit enhancement may accumulate, while at the same time reliance on the counterparty may diminish. In this case, appropriate rating stresses are applied to project whether available credit enhancement will be sufficient to cover both asset credit risk and counterparty risk.
 - Multiple counterparties may wish to jointly and fully support each other's obligations, in which case Standard & Poor's joint support criteria may apply (see "Methodology And Assumptions For Rating Jointly Supported Financial Obligations," published May 23, 2016).
 - The rating on a supported security may be constrained by the lowest-rated counterparty (see "Assessing Credit Quality By The Weakest Link," published Feb. 13, 2012).
23. The remainder of this article focuses on the replacement framework and is set out under each of the four categories of counterparty obligation.

VII. METHODOLOGY AND ASSUMPTIONS: BANK ACCOUNTS

A. Definition

24. Bank account is a generic term and, for the purposes of these criteria, may include bank accounts holding cash or securities. Examples include reserve accounts, collection accounts, and payment accounts. These criteria apply to the financial institution providing the account. While there is no limit to the exposure amount in such accounts, the minimum eligible ratings differ depending on the nature of the exposure and the exposure amount (see paragraph 26).
25. For the purposes of applying these criteria, this category does not include:
- Securities in such accounts that are within the scope of "Global Investment Criteria For Temporary Investments In Transaction Accounts," published May 31, 2012.
 - Accounts in defeasance structures that are within the scope of "Methodology And Assumptions: Assigning Ratings To Bonds In The U.S. Based On Escrowed Collateral," published Nov. 30, 2012.
 - Bank accounts holding cash collateral in funded synthetic transactions, which are treated as direct support obligations (see paragraph 59).

Section VII, "Bank Accounts," will not apply to corporate and government issues (e.g., stand-alone

tax-exempt single- and multifamily housing bonds, municipal pools, industrial development bonds, etc.) that do not have a special-purpose vehicle as part of their structure. We believe that these issuers or obligors have active management and are not constrained in their management as in the case of a structured finance special-purpose vehicle. This reflects our belief that the management teams of these issuers or obligors have the ability to make decisions to mitigate the credit risk associated with the bank account provider.

B. Minimum Eligible Counterparty Rating

26. The minimum eligible counterparty ratings in table 1 apply to bank account providers and depend on whether the expected exposure amount is considered to be "limited" or "minimal". They are considered to be "limited" unless they are considered to be "minimal". To qualify for treatment as "minimal", the aggregated exposure to the counterparty is expected to be small (e.g., typically no more than 5% of the original pool balance or, for revolving structures and programs with ongoing issuance, the higher of the original and current pool balances), and the analysis should show that either:
- The impact of a counterparty's failure to perform is not likely to cause a direct disruption of payments on the rated security during the replacement period; or
 - An adverse impact on the supported security would only be likely to result from the occurrence of multiple events.

Table 1

Minimum Eligible Counterparty Ratings For Bank Account Providers

| Maximum potential rating on supported security | Bank account (limited) | Bank account (minimal) |
|--|------------------------|------------------------|
| AAA | A | BBB |
| AA+ | A | BBB |
| AA | A- | BBB |
| AA- | A- | BBB- |
| A+ | BBB+ | BBB- |
| A | BBB | BBB- |
| A- | BBB- | BB+ |
| BBB+ | BBB- | BB+ |
| BBB | BBB- | BB |
| BBB- | Security rating | BB |
| BB+ | Security rating | BB |

Table 1

Minimum Eligible Counterparty Ratings For Bank Account Providers (cont.)

| Maximum potential rating on supported security | Bank account (limited) | Bank account (minimal) |
|--|------------------------|------------------------|
| BB and below | Security rating | Security rating |

1. For purposes of inferring a long-term minimum eligible rating for entities that have only short-term ratings, or in transactions where only short-term ratings on the counterparty are referenced, the following apply:

- o 'A-1+' corresponds to 'AA-'.
- o 'A-1' corresponds to 'A' for financial institutions, and 'A-' for all other entities.
- o 'A-2' corresponds to 'BBB'.
- o 'A-3' corresponds to 'BBB-'.

2. To meet the minimum eligible rating of 'A', the entity should also have a short-term rating of 'A-1'. A minimum eligible rating of 'A' in the transaction document is sufficient so long as the counterparty has a short-term rating of 'A-1'. However, if a minimum eligible rating of 'A+' is required in the transaction document, then verifying that the counterparty also has a short-term rating of 'A-1' is not required. Conversely, if only a short-term rating is referenced in the transaction document, that is sufficient and an equivalent long-term rating is inferred as per footnote 1.

3. To meet the minimum eligible rating of 'BBB', the entity should also have a short-term rating of 'A-2'.

ICR--Issuer credit rating.

27. In certain circumstances, these criteria contemplate exceptions to the minimum eligible counterparty rating or replacement commitment in relation to certain bank accounts. For instance, trust or custodial institutions may be subject to laws and regulations that isolate the accounts from the insolvency risk of the institution (although in most jurisdictions this applies to securities rather than cash). In the case of the U.S., U.K., Argentina, Japan, and Mexico, we believe applicable laws and regulations provide that securities held in true corporate trust, custody, or other fiduciary accounts are sufficiently isolated from the insolvency risk of the institution (usually a bank) that provides such an account. For the avoidance of doubt, the temporary investments criteria and minimum eligible ratings in those temporary investments criteria would still apply to the securities held in such an account, and if such institution places cash in a deposit account at the institution or with another deposit taking institution, the minimum eligible counterparty rating applies to that institution, unless mitigating factors apply. For example, in our view, a mitigating factor exists in the U.S. 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 (Title 12 Regulations) or a similar U.S. state law. Title 12 Regulations require that collateral be set aside to protect account beneficiaries with respect to fiduciary funds held in a deposit account.

C. Replacement Commitment

28. A bank account provider that commits to replace itself with an eligible counterparty or to obtain an appropriately rated guarantor within the remedy period is consistent with a supported security achieving the maximum potential rating. If the commitment to replace the bank account provider rests with the issuer or trustee (rather than the bank account provider), the issuer or trustee taking "reasonable efforts" to replace the bank account provider with an eligible counterparty or obtain an appropriately rated guarantor within the remedy period is consistent with the supported security achieving the maximum potential rating.

D. Remedy Period

29. From the date that the rating on a counterparty is lowered below the minimum eligible counterparty rating, there is a remedy period that is consistent with a supported security achieving the maximum potential rating. These remedy periods are:
 - For "limited" exposure bank accounts: 60 calendar days; and
 - For "minimal" exposure bank accounts: 30 calendar days.
30. The remedy period may be extended for up to an additional 30 calendar days if the counterparty provides the trustee and Standard & Poor's with a written action plan before the initial remedy period expires. The plan should describe the steps the counterparty has taken, and will take, to remedy the downgrade within the extended remedy period. The plan may include draft documentation or a letter of intent from the replacement counterparty.
31. The exercise of a remedy action should not result in any losses on the supported security (e.g., losses related to negative carry or the issuer bearing any unaccounted for costs).

E. Government-Sponsored Deposit Insurance

32. For deposits that are insured by a government sponsor, the minimum eligible counterparty rating applies to the insurer, rather than the depository institution where we believe:
 - Payments from the deposit insurer will be timely; or
 - If timely payment is not certain, a delay in payment is unlikely to result in a default on the supported security.
33. The applicable minimum eligible counterparty rating as set out in table 1 is determined by applying the conditions as described in paragraph 26.
34. For government-sponsored deposit insurance, a replacement mechanism is not required for achieving the maximum potential rating on the supported security, for the following reasons:
 - In effect, the deposit insurer is an already committed replacement counterparty;
 - Both the primary institution and deposit insurer must default before the supported security will be directly affected; and
 - If the rating on the sovereign is lowered, it is likely that all ratings within that jurisdiction will trend lower, reflecting the relevant country risk factors.
35. Depending on the nature, amount, and/or timeliness of the deposit insurance, these criteria may treat the benefit as an indirect or direct support obligation. For instance, it may mitigate commingling risk, as is the case for certain RMBS schemes originated by Japanese deposit taking institutions (see paragraph 48). Similarly, it may inform our analysis and sizing of deposit set-off risk where a depositor insurance scheme applies.
36. Examples of deposit insurance provided by government-sponsored entities include the Financial Deposit Insurance Corp. (FDIC) in the U.S., the Deposit Insurance Corp. of Japan (DIC), and the Financial Services Compensation Scheme (FSCS) in the U.K.

VIII. METHODOLOGY AND ASSUMPTIONS: INDIRECT SUPPORT OBLIGATIONS

A. Definition

37. Indirect support obligations are obligations that meet the conditions set out in paragraph 38. They may include originator set-off and commingling risk, servicer and trustee advances, and liquidity reserves and liquidity facilities that function akin to servicer advances.
38. To qualify for treatment as an indirect support obligation under these criteria, (i) the aggregated exposure to the counterparty is expected to be small (e.g., typically no more than 5% of the original pool balance or, for revolving structures and programs with ongoing issuance, the higher of the original and current pool balances); (ii) the replacement period is up to 30 calendar days; and (iii) the analysis should show that either:
- The impact of a counterparty's failure to perform is not likely to cause a direct disruption of payments on the supported security during the replacement period; or
 - An adverse impact on the supported security would only be likely to result from the occurrence of multiple events.
39. If the conditions in paragraph 38 are not satisfied, these criteria treat the exposure as a direct support obligation and part IX applies.

B. Minimum Eligible Counterparty Rating

40. The minimum eligible counterparty ratings in table 2a apply to exposures that for purposes of these criteria meet the definition of an indirect support obligation.

Table 2a

Minimum Eligible Counterparty Ratings For Indirect Support Obligations

| Maximum potential rating on supported security | Minimum eligible counterparty rating |
|--|--------------------------------------|
| AAA | BBB |
| AA+ | BBB |
| AA | BBB |
| AA- | BBB- |
| A+ | BBB- |
| A | BBB- |
| A- | BB+ |
| BBB+ | BB+ |
| BBB | BB |
| BBB- | BB |
| BB+ | BB |

Table 2a

Minimum Eligible Counterparty Ratings For Indirect Support Obligations (cont.)

| Maximum potential rating on supported security | Minimum eligible counterparty rating |
|--|--------------------------------------|
| BB and below | Security rating |

1. For purposes of inferring a long-term minimum eligible rating for entities that have only short-term ratings, or in transactions where only short-term ratings on the counterparty are referenced, the following apply:

- o 'A-1+' corresponds to 'AA-'.
- o 'A-1' corresponds to 'A' for financial institutions, and 'A-' for all other entities.
- o 'A-2' corresponds to 'BBB'.
- o 'A-3' corresponds to 'BBB-'.

2. To meet the minimum eligible rating of 'A', the entity should also have a short-term rating of 'A-1'. A minimum eligible rating of 'A' in the transaction document is sufficient so long as the counterparty has a short-term rating of 'A-1'. However, if a minimum eligible rating of 'A+' is required in the transaction document, then verifying that the counterparty also has a short-term rating of 'A-1' is not required. Conversely, if only a short-term rating is referenced in the transaction document, that is sufficient and an equivalent long-term rating is inferred as per footnote 1.

3. To meet the minimum eligible rating of 'BBB', the entity should also have a short-term rating of 'A-2'.

ICR--Issuer credit rating.

C. Replacement And Draw-To-Cash Commitment

41. An indirect support counterparty that commits to, within the remedy period, replace itself with an eligible counterparty, obtain an appropriately rated guarantor, or fund a reserve for the counterparty's obligation, if the rating on that indirect support counterparty falls below the minimum eligible counterparty rating, is consistent with the supported security achieving the maximum potential rating.
42. For those indirect support counterparty obligations that are structured with draw-to-cash provisions (e.g., liquidity facilities), we consider that the combination of a counterparty's commitment to undertake "commercially reasonable efforts to replace" (according to the documents) and, if the counterparty fails to replace itself or apply other appropriate remedies within the remedy period, a commitment to draw-to-cash, is generally equivalent to a replacement framework. Cash draws are subject to bankruptcy-remoteness analysis, and the criteria for bank accounts (part VII) apply to the related bank account. For the avoidance of doubt, these criteria do not require the counterparty to replace itself once an indirect support obligation is drawn-to-cash.

D. Remedy Period

43. A remedy period of 30 calendar days from the date that the rating on the counterparty is lowered below the minimum eligible counterparty rating is consistent with the supported security achieving the maximum potential rating.
44. The remedy period may be extended for up to an additional 30 calendar days if the counterparty provides the trustee and Standard & Poor's with a written action plan before the initial remedy period expires. The plan should describe the steps the counterparty has taken, and will take, to remedy the downgrade within the extended remedy period. The plan may include draft documentation or a letter of intent from the replacement counterparty.

45. The exercise of a remedy action should not result in any losses on the supported security (e.g., losses related to negative carry or the issuer bearing any unaccounted for costs).

E. Commingling Risk

46. 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. These criteria consider the rating on the servicer, the amount of funds likely to be held in a servicer account at any given time, and the potential impact of a delay in receipt of those funds on supported securities. To be consistent with these criteria, the servicer should pay to the SPE collection account any collections that the SPE is entitled to receive, in time for the issuer to make payments on supported securities on each payment date.

1. Mitigating commingling risk based on a minimum eligible servicer rating

47. To address commingling risk, structured finance transactions may apply eligibility standards based on the rating on the servicer. The minimum eligible servicer ratings in table 2b consider the amount of commingled collections held by the servicer at any given time. Based on the amount of commingled collections, these criteria treat the exposure as "limited" unless it qualifies for treatment as "minimal". To qualify for treatment as "minimal", the aggregated exposure to the commingled funds is expected to be small (e.g., typically no more than 5% of the original pool balance or, for revolving structures and programs with ongoing issuance, the higher of the original and current pool balances), and the analysis should show that either:
- The impact of a servicer insolvency on the commingled funds is not likely to cause a direct disruption of payments on the rated security during the replacement period; or
 - An adverse impact on the supported security would only be likely to result from the occurrence of multiple events.

Table 2b

Minimum Eligible Servicer Ratings For Commingling Risk

| Maximum potential rating on supported security | Minimum eligible servicer rating | |
|--|----------------------------------|----------------------------|
| | Commingling risk (limited) | Commingling risk (minimal) |
| AAA | A | BBB |
| AA+ | A | BBB |
| AA | A- | BBB |
| AA- | A- | BBB- |
| A+ | BBB+ | BBB- |
| A | BBB | BBB- |
| A- | BBB- | BB+ |
| BBB+ | BBB- | BB+ |
| BBB | BBB- | BB |
| BBB- | Security rating | BB |
| BB+ | Security rating | BB |

Table 2b

Minimum Eligible Servicer Ratings For Commingling Risk (cont.)

| Maximum potential rating on supported security | Minimum eligible servicer rating | |
|--|----------------------------------|----------------------------|
| | Commingling risk (limited) | Commingling risk (minimal) |
| BB and below | Security rating | Security rating |

1. For purposes of inferring a long-term minimum eligible rating for entities that have only short-term ratings, or in transactions where only short-term ratings on the counterparty are referenced, the following apply:

o 'A-1+' corresponds to 'AA-'.

o 'A-1' corresponds to 'A' for financial institutions, and 'A-' for all other entities.

o 'A-2' corresponds to 'BBB'.

o 'A-3' corresponds to 'BBB-'.

2. To meet the minimum eligible rating of 'A', the entity should also have a short-term rating of 'A-1'. A minimum eligible rating of 'A' in the transaction document is sufficient so long as the counterparty has a short-term rating of 'A-1'. However, if a minimum eligible rating of 'A+' is required in the transaction document, then verifying that the counterparty also has a short-term rating of 'A-1' is not required. Conversely, if only a short-term rating is referenced in the transaction document, that is sufficient and an equivalent long-term rating is inferred as per footnote 1.

3. To meet the minimum eligible rating of 'BBB', the entity should also have a short-term rating of 'A-2'.

ICR--Issuer credit rating.

48. Where the commingling risk is covered by a government-sponsored deposit insurer, as is the case with certain RMBS schemes originated and serviced by Japanese deposit-taking institutions, the relevant minimum eligible counterparty rating applies to the higher of the deposit insurance institution and the deposit-taking institution's ICR (see "Methodology And Assumptions For Rating Japanese RMBS", published Dec. 19, 2014). The condition set out in paragraph 34 applies here, meaning that a replacement mechanism is not a prerequisite for achieving the maximum potential rating on Japanese RMBS.

2. Remedy period

49. From the date that the rating on a servicer is lowered below the minimum eligible servicer rating, there is a remedy period that is consistent with a supported security achieving the maximum potential rating. These remedy periods are:

- For "limited" exposures: 60 calendar days; and
- For "minimal" exposures: 30 calendar days.

3. Remedies and alternative methods to address commingling risk

50. Remedies, if the rating on the servicer falls below the minimum eligible servicer rating, or alternative methods of addressing commingling risk include such structural risk mitigants as:

- For unrated servicers (or servicers whose rating is or falls below the minimum eligible servicer rating), the deposit of all collections that the SPE is entitled to receive into a deposit account with an eligible counterparty that is in the name of the SPE, within two business days of receipt. Both the potential exposure amount and potential impact on the supported security are

considered in determining whether this two-day exposure period is consistent with the rating on the supported security, without the benefit of additional risk mitigants.

- Cash reserves.
- Additional credit enhancement.
- A liquidity facility to cover potential payment delays.
- Payments being made directly into a deposit account in the name of the SPE and held with an eligible counterparty.
- Payments being made into a lockbox account (to which the servicer's access is appropriately limited), and then being transferred to a deposit account in the name of the SPE and held with an eligible counterparty.

51. When assessing the effectiveness of the risk mitigants listed in paragraph 50, the governing legal jurisdiction is considered.

IX. METHODOLOGY AND ASSUMPTIONS: DIRECT SUPPORT OBLIGATIONS

A. Definition

52. Counterparty obligations that provide liquidity or partial credit support to a security are direct support obligations if they do not fit the definitions for bank accounts (see paragraph 24), indirect support obligations (see paragraph 37), or derivatives (see paragraph 65). For purposes of these criteria, the following examples are direct support obligations only if they partially support repayment of the supported securities: LOCs, GICs, guarantees, repurchase agreements, liquidity facilities, total return swaps, and put options held by the SPE.
53. Direct support obligations may form all or part of the credit enhancement provided to a supported security, provided they cannot be the sole source of repayment for the supported security, as in a credit substitution.
54. In addition, bank accounts holding cash collateral in funded synthetic transactions are also treated as direct support obligations under these criteria (see paragraph 25), as are obligations of funded synthetic transaction counterparties that provide functional equivalents (see paragraph 59).
55. Certain obligations may have characteristics that fit the definition of more than one category of counterparty obligation. Where this is the case, the obligation is treated as a direct support obligation, unless the obligation fully meets the requirements of one of the other categories as outlined in parts VII, VIII, or X.

B. Minimum Eligible Counterparty Rating

56. The nature of the direct support obligation determines the applicable minimum eligible counterparty rating. There are three subcategories of direct support obligations:
- Obligations of funded synthetic transaction counterparties that provide bank accounts collateralized by cash and certain derivative or other obligations in those transactions, as specified in paragraph 59;

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- Direct substantial support obligations; and
 - Direct limited support obligations.
57. The more significant the exposure to, and the greater the reliance of the supported security on, the counterparty, the higher the minimum eligible counterparty rating (see table 3). Direct substantial support obligations are defined as obligations that exceed an exposure period of 365 days, with an average exposure amount exceeding 5% of the original pool balance (or for revolving programs or programs with ongoing issuance, the higher of the original and current pool balances). Direct limited support obligations are defined as obligations that do not satisfy all conditions for direct substantial support obligations or indirect support obligations. In classifying a counterparty's support as direct substantial or direct limited support, the security's exposure to that counterparty is aggregated if the counterparty provides multiple forms of support. In addition, the exposures are expected to be continuous, so the classification disregards temporary or one-off peaks that do not reflect the ongoing exposure to a counterparty.
58. These criteria define the exposure period for purposes of categorizing direct support obligations as the shorter of (i) the term of the obligation, and (ii) the period the rating relies on the support.
59. Providers of bank accounts collateralized by cash and certain derivative or other counterparties in funded synthetic transactions, whose support obligations include investment agreements, repurchase agreements, or functional equivalents, are subject to (regardless of the exposure period) a minimum eligible counterparty rating that is no lower than one notch below the rating on the supported security, reflecting the significant interrelationships with and exposures to the counterparty (see table 3).

Table 3

Minimum Eligible Counterparty Ratings For Direct Support Obligations

| Maximum potential rating on supported security | Minimum eligible counterparty rating | | |
|--|--------------------------------------|---|-------------------------------------|
| | Funded synthetic structure | Direct support obligation (substantial) | Direct support obligation (limited) |
| AAA | AA+ | AA | A |
| AA+ | AA | AA | A |
| AA | AA- | AA- | A- |
| AA- | Security rating | Security rating | A- |
| A+ | Security rating | Security rating | BBB+ |
| A | Security rating | Security rating | BBB |
| A- | Security rating | Security rating | BBB- |
| BBB+ | Security rating | Security rating | BBB- |
| BBB | Security rating | Security rating | BBB- |

Table 3

Minimum Eligible Counterparty Ratings For Direct Support Obligations (cont.)

| Maximum potential rating on supported security | Minimum eligible counterparty rating | | |
|--|--------------------------------------|---|-------------------------------------|
| | Funded synthetic structure | Direct support obligation (substantial) | Direct support obligation (limited) |
| BBB- and below | Security rating | Security rating | Security rating |

1. For purposes of inferring a long-term minimum eligible rating for entities that have only short-term ratings, or in transactions where only short-term ratings on the counterparty are referenced, the following apply:

o 'A-1+' corresponds to 'AA-'.

o 'A-1' corresponds to 'A' for financial institutions, and 'A-' for all other entities.

o 'A-2' corresponds to 'BBB'.

o 'A-3' corresponds to 'BBB-'.

2. To meet the minimum eligible rating of 'A', the entity should also have a short-term rating of 'A-1'. A minimum eligible rating of 'A' in the transaction document is sufficient so long as the counterparty has a short-term rating of 'A-1'. However, if a minimum eligible rating of 'A+' is required in the transaction document, then verifying that the counterparty also has a short-term rating of 'A-1' is not required. Conversely, if only a short-term rating is referenced in the transaction document, that is sufficient and an equivalent long-term rating is inferred as per footnote 1.

3. To meet the minimum eligible rating of 'BBB', the entity should also have a short-term rating of 'A-2'.

ICR--Issuer credit rating.

C. Replacement And Draw-To-Cash Commitment

- 60. A direct support counterparty that commits to, within the remedy period, replace itself with an eligible counterparty, obtain an appropriately rated guarantor or pre-fund/draw-to-cash the obligation, if the rating on that direct support counterparty falls below the minimum eligible counterparty rating, is consistent with the supported security achieving the maximum potential rating.
- 61. For those direct support counterparty obligations that are structured with draw-to-cash provisions (e.g., liquidity facilities), we consider that the combination of a counterparty's commitment to undertake "commercially reasonable efforts to replace" (according to the documents) and, if the counterparty fails to replace itself or apply other appropriate remedies within the remedy period, a commitment to draw-to-cash, is generally equivalent to a replacement framework. Cash draws are subject to bankruptcy-remoteness analysis, and the criteria for bank accounts (part VII) apply to the related bank account. For the avoidance of doubt, these criteria do not require the counterparty to replace itself once a direct support obligation is drawn-to-cash.

D. Remedy Period

- 62. A remedy period of 60 calendar days from the date that the rating on the counterparty is lowered below the minimum eligible counterparty rating is consistent with the supported security achieving the maximum potential rating.
- 63. The remedy period may be extended for up to an additional 30 calendar days if the counterparty provides the trustee and Standard & Poor's with a written action plan before the initial remedy period expires. The plan should describe the steps the counterparty has taken, and will take, to

remedy the downgrade within the extended remedy period. The plan may include draft documentation or a letter of intent from the replacement counterparty.

- 64. The exercise of a remedy action should not result in any losses on the supported security (e.g., losses related to negative carry or the issuer bearing any unaccounted for costs).

X. METHODOLOGY AND ASSUMPTIONS: DERIVATIVES

A. Definition

- 65. Derivatives, for the purposes of these criteria, include counterparty obligations governed by the International Swaps and Derivatives Association Inc.'s (ISDA) standard swap agreement framework, or a similar appropriate document.
- 66. Currency, interest rate, and basis swaps, as well as caps and floors are all examples of obligations that would typically be treated as derivatives for purposes of these criteria.
- 67. For purposes of these criteria, the definition of derivatives excludes repurchase agreements and total return swap agreements that cover, among other risks, market value exposures. These criteria treat these repurchase and total return swap agreements as direct support obligations.

B. Minimum Eligible Counterparty Ratings And Collateral Amounts

- 68. These criteria outline four options (replacement options 1 to 4) that combine the minimum eligible counterparty ratings, collateral amounts, and remedy periods to support the same maximum potential rating (see table 4). These criteria consider that similar credit quality (and hence similar maximum potential ratings) may be achieved through balancing the minimum eligible counterparty rating and the collateral amount, where lower minimum eligible counterparty ratings result in higher collateral amounts. The replacement collateral amounts for the four options range from the highest level of collateral in option 1 to no collateral in option 4. (See chart 2 in Appendix 1 for a relative comparison.) These criteria consider that the commitment to replace at a higher rating level balances the need for collateral as an incentive to replace, because the security rating is closer to the counterparty's ICR.
- 69. The purpose of posting collateral, including the volatility buffer, is to increase the likelihood that the counterparty will be replaced by covering the derivative's replacement cost and providing an economic incentive for an ineligible counterparty to replace itself.

Table 4

Minimum Eligible Counterparty Ratings For Derivatives

| Maximum potential rating on supported security | Minimum eligible counterparty rating | | | | Replacement option 3 | Replacement option 4 |
|--|--------------------------------------|-----------------|----------------------|-----------------|----------------------|----------------------|
| | Replacement option 1 | | Replacement option 2 | | | |
| | Without collateral | With collateral | Without collateral | With collateral | | |
| AAA | A | BBB+ | A | A- | A | A+ |
| AA+ | A | BBB+ | A | A- | A | A+ |
| AA | A- | BBB+ | A | A- | A | A+ |
| AA- | A- | BBB | A- | BBB+ | A- | A |

Table 4

Minimum Eligible Counterparty Ratings For Derivatives (cont.)

| Maximum potential rating on supported security | Minimum eligible counterparty rating | | | | | |
|---|--------------------------------------|-------------------|----------------------|---|----------------------|----------------------|
| | Replacement option 1 | | Replacement option 2 | | Replacement option 3 | Replacement option 4 |
| | Without collateral | With collateral | Without collateral | With collateral | | |
| A+ | BBB+ | BBB | A- | BBB+ | A- | A |
| A | BBB+ | BBB | A- | BBB+ | A- | Security rating |
| A- | BBB | BBB- | BBB+ | BBB | BBB+ | Security rating |
| BBB+ | BBB | BBB- | Security rating | BBB | Security rating | Security rating |
| BBB | BBB- | BB+ | Security rating | BBB- | Security rating | Security rating |
| BBB- | Security rating | BB+ | Security rating | Security rating | Security rating | Security rating |
| BB+ and below | Security rating | Security rating | Security rating | Security rating | Security rating | Security rating |
| Collateral amount BEFORE replacement trigger (see note 1) | N/A | MTM + Option 1 VB | N/A | MTM x 1.25 | N/A | N/A |
| Collateral amount AFTER replacement trigger (see note 1) | N/A | MTM + Option 1 VB | Not applicable | Higher of: (i) MTM + Option 2 VB, or (ii) MTM x 1.3 | MTM x 1.25 | N/A |
| Remedy period | 10 business days | 60 calendar days | 10 business days | 60 calendar days | 60 calendar days | 30 calendar days |

1. A derivative counterparty agrees to replace itself when its rating falls below the minimum eligible counterparty rating with collateral for options 1 and 2, and the minimum eligible counterparty rating for options 3 and 4.

2. MTM means the "mark-to-market" value of a derivative contract. A minimum eligible rating of 'A' in the transaction document is sufficient so long as the counterparty has a short-term rating of 'A-1'. However, if a minimum eligible rating of 'A+' is required in the transaction document, then verifying that the counterparty also has a short-term rating of 'A-1' is not required. Conversely, if only a short-term rating is referenced in the transaction document, that is sufficient and an equivalent long-term rating is inferred as per footnote 1.

3. VB means "volatility buffer", as specified in Appendix 1.

4. For purposes of inferring a long-term minimum eligible rating for entities that have only short-term ratings, or in transactions where only short-term ratings on the counterparty are referenced, the following apply:

o 'A-1+' corresponds to 'AA-'.

o 'A-1' corresponds to 'A' for financial institutions, and 'A-' for all other entities.

o 'A-2' corresponds to 'BBB'.

o 'A-3' corresponds to 'BBB-'.

5. To meet the minimum eligible rating of 'A', the entity should also have a short-term rating of 'A-1'.

6. To meet the minimum eligible rating of 'BBB', the entity should also have a short-term rating of 'A-2'.

N/A--Not applicable. ICR--Issuer credit rating.

70. For purposes of operational efficiency and flexibility, it is possible that issuers and counterparties may document more than one replacement option when a derivative agreement is entered into. These criteria do not require that more than one replacement option is documented. If more than one replacement option is documented, the counterparty must indicate which option applies from Day 1, but it is not required to elect any of the other options as a remedy if its rating becomes ineligible under its original option.
71. When more than one replacement option is documented, these criteria require that as a condition of electing to switch options:
- The counterparty is not a defaulting party or an affected party under the derivative agreement;
 - The counterparty will give at least one day's notice clearly specifying the new replacement option to the trustee and to Standard & Poor's before the change occurs;
 - The change would not result in a breach of the minimum eligible counterparty rating for replacement; and
 - The change occurs before any initial remedy period has expired (i.e., disregarding any remedy period extension resulting from a written action plan).
72. As shown in table 4, under replacement options 1 and 2, a counterparty first posts collateral when its rating falls below the minimum eligible counterparty rating without collateral; it agrees to replace itself when its rating falls below the minimum eligible counterparty rating with collateral. Under replacement option 3, the derivative counterparty agrees to post collateral and replace itself when its rating falls below the minimum eligible counterparty rating. Under replacement option 4, the derivative counterparty agrees to replace itself when its rating falls below the minimum eligible counterparty rating.
73. Generally, the rating level for collateral posting would depend on the current rating on the supported security. However, if the rating on the supported security has been lowered as a consequence of the counterparty's failure to perform, the rating level for collateral posting would be based on the rating on the supported security before that downgrade occurred (see Appendix 3, paragraph 113). To achieve the maximum potential rating, the failure by a counterparty to post collateral, when due, should give the issuer the right to terminate the derivative agreement.
74. If a counterparty's ICR falls below the minimum eligible counterparty rating for replacement and the counterparty fails to implement a remedy within the remedy period, then, absent mitigating factors, the rating on the supported security would be lowered to the counterparty's ICR.

C. Replacement Commitment

75. The counterparty should covenant in the derivative agreement to use "commercially reasonable efforts to", within the remedy period:
- Replace itself with an eligible derivatives counterparty; or
 - Obtain a guarantee from an appropriately rated guarantor.
- See paragraphs 109 and 110 for related termination provisions.
76. The exiting counterparty should agree to cover all costs relating to any remedy.

D. Remedy Period

77. For replacement options 1, 2, and 3, a remedy period of 60 calendar days from the date that the rating on the counterparty is lowered below the minimum eligible counterparty rating for replacement is consistent with the supported security achieving the maximum potential rating. For replacement option 4, a shorter remedy period of 30 calendar days similarly applies.
78. The remedy period of 30 or 60 calendar days may be extended for up to an additional 30 calendar days, except when the counterparty is switching to an alternate replacement option (see paragraph 71), if the counterparty provides the trustee and Standard & Poor's with a written action plan before the initial remedy period expires. The plan should describe the steps the counterparty has taken, and will take, to remedy the downgrade within the extended remedy period. The plan may include draft documentation or a letter of intent from the replacement counterparty.
79. Alternatively, the counterparty may covenant to remedy the downgrade below the minimum eligible counterparty rating for replacement "as soon as reasonably practicable," in cases where the issuer's right to terminate the derivative agreement is subject to the receipt of a replacement bid and "breach of agreement" by the counterparty is included as an event of default in the derivative agreement (see paragraph 110 for further details about this alternative). This alternative is consistent with the supported security achieving the maximum potential rating.

E. Collateral Posting And Related Documentation

80. The counterparty should execute a credit support document, typically an ISDA Credit Support Annex (CSA) governed by New York or English law or similar document. The credit support document should provide for the counterparty to, among other things, post and maintain collateral consistent with these criteria. These criteria do not require a CSA if only replacement option 4 is documented in the applicable derivative agreement.
81. To be consistent with these criteria, the CSA may contemplate a collateral posting period of up to 10 business days from the date the counterparty's rating is lowered to below the applicable rating level for posting collateral (replacement options 1, 2, and 3). If, before the initial 10 business days expire, the counterparty provides the trustee and Standard & Poor's with written plans for collateral posting, these criteria provide for an additional 10 business days to the remedy period to allow for collateral posting.
82. Any posted collateral should be held by the SPE, trustee, securities intermediary, or a custodian that is independent of the counterparty. The criteria for bank accounts (part VII) apply to such collateral accounts, including those circumstances stated in paragraph 27 when the minimum eligible counterparty rating may not apply.
83. The counterparty should agree to absorb all costs related to posting and maintaining the collateral.
84. The parties should make elections in the CSA that give the issuer clear enforcement rights against the collateral in circumstances when the counterparty is the defaulting party or the sole affected party.

F. Eligible Collateral

85. The criteria define eligible collateral as:
- Cash,
 - Sovereign government securities, and
 - Other securities listed in Standard & Poor's market value criteria (see "Methodology And Assumptions For Market Value Securities," published Sept. 17, 2013).
86. The value given to posted collateral is equal to the product of the collateral's mark-to-market value and the applicable market value advance rate (or valuation percentage according to ISDA terminology), e.g., for a market value haircut of 20%, the applicable market value advance rate or ISDA valuation percentage is 80% (100% minus 20%). For purposes of these criteria, haircuts are not applied to cash or sovereign government securities rated at least as high as the rating on the supported securities. However, haircuts are applied to sovereign government securities rated lower than the rating on the supported securities, and all other securities. Where market value haircuts apply, the valuation percentages of the other securities listed in Standard & Poor's market value criteria are based on haircuts for the next lower rating category. For example, 'AA' haircuts for securities listed in our market value criteria may support 'AAA' ratings and 'A' haircuts may support 'AA' ratings. In this context, the haircuts can be based on the lower liability ratings because the collateral's market value risk in a derivative is a second-order risk, after the credit risk of the counterparty.
87. These criteria accommodate collateral posting in currencies other than that of the counterparty's payment obligation, if:
- The counterparty posts additional collateral to account for the foreign exchange risk (see paragraph 88 and Appendix 2); and
 - Both the counterparty's payment obligation and posted collateral are denominated in the more liquid and less volatile currencies classified in currency risk groups 1 or 2 (see table 5 and paragraphs 89-96).
88. When a counterparty posts collateral in currencies that are different from its payment obligations, the net value given to the posted collateral is based on the product of the collateral's mark-to-market value, the applicable market value advance rate, and the applicable currency advance rates from Appendix 2. In this scenario, the ISDA valuation percentage is the product of the application of the market value advance rate and the currency advance rate (e.g., for a market value advance rate of 80% and currency advance rate of 90%, the ISDA valuation percentage is 72%). These currency advance rates (that apply when the mark-to-market of the collateral is weekly) are based on the rating on the supported security: 'AAA' (see table 10a), 'AA' category (see table 10b), and 'A+' or lower (see table 10c). These rates were derived by looking across the eligible currencies in currency risk groups 1 and 2, using extreme tail analyses similar to the principles outlined in "Foreign Exchange Risk In Structured Finance--Methodology And Assumptions," published April 21, 2017.

G. Currency Framework To Support Collateral Analysis

89. These criteria use a currency framework to assign volatility buffers (see paragraphs 97-108), and additional haircuts for currency risk where collateral is provided in currencies other than the counterparty's payment obligation (see paragraphs 87-88).

90. The currency framework classifies currencies into four risk groups (groups 1 to 4, with group 1 being the least risky and group 4 being the most risky). The classification is based on an analysis of whether the currency is a reserve currency (see paragraph 91), and if not, is based on three factors: sovereign risk (see paragraph 92), political risk (see paragraph 93), and data analysis and historical events (see paragraph 94). For nonreserve currencies, these criteria treat sovereign risk as the primary measure, with the other factors only able to move the currency to a more risky group (see table 5).

Table 5

Analytical Factors By Currency Risk Groups

| Analytical factors | Group 1 | Group 2 | Group 3 | Group 4 |
|--|---------------------|-------------------------------------|-------------------------------------|--|
| Sovereign foreign currency rating (see paragraph 92) | AAA and AA category | A category | BBB category | BB+ or below |
| Political risk ranking (see paragraph 93) | Strongest | Range between strongest and weakest | Range between strongest and weakest | Weakest |
| Data analysis and historical events (see paragraph 94) | Satisfactory | Satisfactory | Satisfactory | Not satisfactory |
| Volatility buffers (see Appendix 1) | Group 1 | Group 2 | Group 3 | Not applicable |
| Maximum potential rating | AAA | AAA | AAA | Counterparty's issuer credit rating plus 1 notch |

1. Reserve currencies

91. Reserve currencies are classified in group 1. Reserve currencies are those defined as such in our sovereign criteria (see "Sovereign Rating Methodology," published Dec. 18, 2017). Reserve currencies currently include British pound sterling, euro, Japanese yen, and U.S. dollar.

2. Nonreserve currencies: Factors to determine the currency risk group

92. **Sovereign risk.** For purposes of these criteria, the factors that influence sovereign creditworthiness (as measured by the sovereign foreign currency rating for the jurisdiction) are considered to be likely to affect the derivatives market by having an impact on market confidence and the willingness of counterparties to do business in that jurisdiction. (See "Sovereign Rating Methodology," published Dec. 18, 2017.)
93. **Political risk.** This is a component of Standard & Poor's sovereign ratings analysis and measures the effectiveness of a government's institutions to respond to economic or political shocks, and to stabilize the sovereign's credit fundamentals during a downturn. It is measured using the political risk ranking scale in Standard & Poor's sovereign criteria (see "Sovereign Rating Methodology," published Dec. 18, 2017). Political risk is considered separately, because other factors (e.g., fiscal risk and external exposure) may lead to a higher sovereign rating than the political risk analysis might suggest. The ability to replace a counterparty may be impaired if counterparties decide to withdraw from a market due to an unstable political environment.

94. **Data analysis and historical events.** These criteria consider data analysis to be satisfactory if there are available and sufficient data reflecting performance through economic downturns and financial market shocks. A lack of data or historically observed volatile behavior may result in a currency being allocated to a higher risk group than indicated by its sovereign and political risk assessments. Relevant data may include government security prices, swap bid/ask spreads, interest rates, exchange rates, and derivative trading volumes.
95. Table 6 lists the risk groups for currencies that these criteria have classified. Classifications may change as the relevant analytical factors change, and this framework can be applied to other currencies that have not yet been classified.

Table 6

Currencies By Risk Groups*

| Currency | Single-currency swap§ | Cross-currency swap |
|--------------------|-----------------------|---------------------|
| U.S. dollar | 1 | 1 |
| Euro | 1 | 1 |
| Japanese yen | 1 | 1 |
| British pound | 1 | 1 |
| Canadian dollar | 1 | 1 |
| Australian dollar | 1 | 1 |
| Danish krone | 1 | 1 |
| Norwegian krone | 1 | 1 |
| Swedish krona | 1 | 1 |
| Swiss Franc | 1 | 1 |
| New Zealand dollar | 1 | 1 |
| Singapore dollar | 1 | 1 |
| Hong Kong dollar | 2 | 2 |
| New Taiwan dollar | 2 | 2 |
| Korean won | 2 | 2 |
| Mexican peso | 3 | 4 |
| South African rand | 3 | 4 |
| Russian ruble | 4 | 4 |

*Classifications may change as the relevant analytical factors change, and this framework can be applied to other currencies that have not yet been classified. §For example, interest rate and basis swaps.

96. In determining the appropriate currency risk group, these criteria consider the nature of the derivatives, for instance, whether it is a single-currency or cross-currency swap. Consequently, these criteria may classify a currency into two risk groups (e.g., a currency may be classified as a lower-risk group for single-currency swaps, and as a higher risk group for cross-currency swaps).

H. Volatility Buffers

97. These criteria establish that the required collateral amount for a derivative is equal to the greater of (i) zero, and (ii) the sum of the agreement's mark-to-market value and the applicable volatility buffer (as multiplied by the notional amount). The published volatility buffers (see Appendix 1)

apply to replacement options 1 and 2 only, and are based on weekly internal valuations of the derivative agreement by the counterparty. To comply with these criteria, once a counterparty is posting collateral, it will make available its weekly internal valuations of the derivative agreements to Standard & Poor's.

98. These criteria allow the derivative's value to be netted against the applicable volatility buffer, when the value of the contract is in favor of the counterparty.
99. The volatility buffers are a function of the following analytical factors:
- Derivative type: Whether the derivative is an interest rate swap (amortizing or not) or cross-currency swap, and whether the basis is fixed-to-floating, floating-to-floating, or (for currency swaps) fixed-to-fixed. (The fixed-to-floating interest rate swap volatility buffers also apply to caps and floors.);
 - Weighted-average life (WAL): The calculation of the remaining WAL of a derivative agreement should be based on a prepayment speed of 0.0%, or such other stressed low prepayment rate as indicated in the relevant criteria for the hedged asset or liability. The stresses used will depend on the relevant maximum potential rating;
 - Replacement option: For replacement option 1 volatility buffers, see Appendix 1, tables 8a ('AAA'), 8b ('AA' category), and 8c ('A+' or lower), and for replacement option 2 volatility buffers, see Appendix 1, tables 9a ('AAA'), 9b ('AA' category), and 9c ('A+' or lower);
 - Rating on the supported security: Whether it is rated 'AAA', in the 'AA' category, or 'A+' or lower; and
 - Currency risk group: The currency risk group is based on the currency of the counterparty's payment obligation (with further haircuts applied if the currency of the collateral is different to the currency of the counterparty's payment obligation).
100. The price volatility for fixed-to-floating swaps approximates the price volatility of fixed-rate securities with similar maturities. Because an interest rate swap is a series of cash flows occurring at known future dates, it can be valued by estimating the present value of each of these cash flows. The present value of the floating-rate leg of the swap should approximate its par amount. The present value of the fixed-rate leg of the swap will vary as yields or discount rates change.
101. The replacement option 1 volatility buffers for interest rate swaps are based on a review of the largest interest movements, which are converted to price declines for government securities and interest rate stress scenarios. Sovereign securities were used as a proxy for how swap pricing may decline in similar stressed environments to supplement the more limited availability of historical data for swaps. Table 7 summarizes the observed three-month price declines in government bond prices from several sovereigns. These values are incorporated into the option 1 volatility buffers for 'AAA' rated supported securities of 12.5% and 15.0% for five- and 10-year, fixed-to-floating rate swaps, respectively.

Table 7

Inferred Price Declines From The Largest Observed Three-Month Interest Rate Movements In Select Government Bonds

| --Five-year maturity (%)-- | | | |
|----------------------------|-------------------|------------------|---------|
| U.S. | Canada | U.K. | Average |
| 12.0 (March 1980) | 12.0 (Sept. 1981) | 13.0 (Nov. 1979) | 12.2 |

Table 7

Inferred Price Declines From The Largest Observed Three-Month Interest Rate Movements In Select Government Bonds (cont.)

| --10-year maturity (%)-- | | | | |
|--------------------------|-----------------|-------------------|-------------------|---------|
| U.S. | France | Germany | Japan | Average |
| 16.0 (March 1980) | 18.0 (May 1981) | 10.0 (March 1980) | 12.0 (April 1980) | 13.9 |

Source: Table 15 in "Request For Comment: Methodology And Assumptions For Market Value Securities," published Aug. 31, 2010.

102. The foreign exchange fixed-to-floating volatility buffers derive from the analysis of historical currency volatility over a one-month window. These results reflect the maximum historical volatility of a single currency, because the fixed leg in a fixed-to-floating swap generally accounts for the volatility. For fixed-to-fixed currency swaps, the criteria double the single currency volatility based on the potential for the maximum historically observed volatility to simultaneously occur in both currencies and in opposite directions.
103. The 'AAA' volatility buffers for replacement option 2 are intended to cover extreme historical yield increases and currency movements. Sizing of the replacement option 2 volatility buffers took into consideration the relative risk between the minimum eligible counterparty ratings, historical interest and currency exchange rates, stress scenarios, and the observed collateral amounts posted in transactions rated by Standard & Poor's. The replacement option 2 volatility buffers range from about 30% to 70% of replacement option 1's volatility buffers, depending on the type of derivative. Regarding the relativities between collateral amounts for replacement options 1 and 2, the shape of the curve (see chart 2 of Appendix 1) approximates a geometric progression and is consistent with the relationship of default rates used in calibrating the corporate CDO criteria (see "Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs," published Aug. 8, 2016). The reduction in the collateral amount should reflect reduced credit risk associated with the higher minimum eligible counterparty rating of 'A-' for replacement option 2.
104. The volatility buffers for securities rated in the 'AA' category and 'A+' or lower are respectively about 65% and 30% of the applicable levels for 'AAA' ratings. The reduced volatility buffers for supported ratings below 'AAA' reflect lower stresses applied at lower rating levels and the reduction in the number of notches between the maximum potential rating and the counterparty's ICR. For example, under replacement option 1, securities rated 'AAA' may be supported by a 'BBB+' rated counterparty, which represents seven notches of uplift above the counterparty's ICR. However, for securities rated 'A+', the maximum uplift on the supported security is four notches from the counterparty's ICR.
105. All else being equal, the volatility buffers differ depending upon the currency risk group classification of the counterparty's payment obligations.
106. For group 2 currencies, the applicable volatility buffers are 1.5x the group 1 levels. Derivatives in group 2 currencies are likely to be more difficult to replace than derivatives in group 1 currencies, thereby warranting higher volatility buffers. Moreover, historical data analysis for group 2 currencies typically shows greater fluctuation in interest rates and foreign exchange rates, as well as a less liquid derivatives market relative to group 1 currencies.
107. For group 3 currencies, the volatility buffers are 2x the group 1 levels. For group 3 currencies, a replacement of the derivative is even less likely to occur.
108. Group 4 currencies are the riskiest and, as a result, the maximum potential rating on the supported security would be no higher than one notch above the counterparty's ICR.

I. Termination Provisions And Events Of Default

109. Termination provisions (referred to as additional termination events [ATEs]) consistent with the maximum potential rating give the issuer the right to terminate the derivative if either of the following occurs with regard to the counterparty:
- It fails to post collateral when due; or
 - It fails to remedy a breach of the minimum eligible counterparty rating for replacement within the remedy period.
110. More specifically, the following termination provisions regarding the minimum eligible counterparty rating for replacement are consistent with the maximum potential rating on a supported security:
- The issuer has the right to terminate the derivative agreement, if within the remedy period the counterparty fails to replace itself with an eligible derivatives counterparty or obtain a guarantee from an appropriately rated guarantor as set out in paragraph 75 (this right applies whether or not the issuer has received a bid from a potential replacement counterparty); or
 - The issuer has the right to terminate the derivative agreement, only if the counterparty has received a bid from a potential replacement counterparty (assuming no other event of default or termination event has occurred) and provided that "breach of agreement" applies to the existing counterparty under the derivative agreement. In this scenario, the counterparty may covenant to remedy the downgrade "as soon as reasonably practicable," as opposed to "within the remedy period," as described in paragraph 75. This replacement commitment is consistent with the maximum potential rating on the supported security, as the counterparty is incentivized to fulfill its commitment to use "commercially reasonable efforts to replace" or remedy the downgrade because failing to do so would be an event of default under the derivative agreement. Such an event of default would give the issuer the right to terminate the agreement, whether or not the counterparty has received a bid from a potential replacement counterparty.
111. If the derivative counterparty is "in-the-money", but is the defaulting party or sole affected party, the impact of a termination payment owed to the counterparty should be mitigated (e.g., by subordination). Furthermore, the counterparty should agree that any early termination payment due will be subject to the transaction's priority of payments.

XI. APPENDICES

Appendix 1: Derivatives—Volatility Buffers (Tables By Security Rating)

Table 8a

Replacement Option 1 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated 'AAA'*

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Currency Risk Group 1 volatility buffers | | | | | |
| Up to 3 | 8.5 | 4 | 10 | 20 | 5 |
| Greater than 3 and less than or equal to 5 | 12.5 | 5 | 15 | 30 | 8 |
| Greater than 5 and less than or equal to 10 | 15 | 6 | 18 | 36 | 9 |
| Greater than 10 and less than or equal to 15 | 18 | 7 | 22 | 44 | 11 |
| Greater than 15 | 21 | 8 | 25 | 50 | 13 |
| Currency Risk Group 2 volatility buffers | | | | | |
| Up to 3 | 13 | 6 | 15 | 30 | 8 |
| Greater than 3 and less than or equal to 5 | 19 | 8 | 23 | 45 | 12 |
| Greater than 5 and less than or equal to 10 | 23 | 9 | 27 | 54 | 14 |
| Greater than 10 and less than or equal to 15 | 27 | 11 | 33 | 66 | 17 |
| Greater than 15 | 32 | 12 | 38 | 75 | 20 |
| Currency Risk Group 3 volatility buffers | | | | | |
| Up to 3 | 17 | 8 | 20 | 40 | 10 |
| Greater than 3 and less than or equal to 5 | 25 | 10 | 30 | 60 | 16 |
| Greater than 5 and less than or equal to 10 | 30 | 12 | 36 | 72 | 18 |
| Greater than 10 and less than or equal to 15 | 36 | 14 | 44 | 88 | 22 |
| Greater than 15 | 42 | 16 | 50 | 100 | 26 |

*For notes that we rate below 'AAA', see tables 8b and 8c.

Table 8b

Replacement Option 1 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated In The 'AA' Category*

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Currency Risk Group 1 volatility buffers | | | | | |
| Up to 3 | 5.5 | 2.6 | 6.5 | 13.0 | 3.3 |

Table 8b

Replacement Option 1 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated In The 'AA' Category* (cont.)

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Greater than 3 and less than or equal to 5 | 8.1 | 3.3 | 9.8 | 19.5 | 5.2 |
| Greater than 5 and less than or equal to 10 | 9.8 | 3.9 | 11.7 | 23.4 | 5.9 |
| Greater than 10 and less than or equal to 15 | 11.7 | 4.6 | 14.3 | 28.6 | 7.2 |
| Greater than 15 | 13.7 | 5.2 | 16.3 | 32.5 | 8.5 |
| Currency Risk Group 2 volatility buffers | | | | | |
| Up to 3 | 8.5 | 3.9 | 9.8 | 19.5 | 5.2 |
| Greater than 3 and less than or equal to 5 | 12.4 | 5.2 | 15.0 | 29.3 | 7.8 |
| Greater than 5 and less than or equal to 10 | 15.0 | 5.9 | 17.6 | 35.1 | 9.1 |
| Greater than 10 and less than or equal to 15 | 17.6 | 7.2 | 21.5 | 42.9 | 11.1 |
| Greater than 15 | 20.8 | 7.8 | 24.7 | 48.8 | 13.0 |
| Currency Risk Group 3 volatility buffers | | | | | |
| Up to 3 | 11.1 | 5.2 | 13.0 | 26.0 | 6.5 |
| Greater than 3 and less than or equal to 5 | 16.3 | 6.5 | 19.5 | 39.0 | 10.4 |
| Greater than 5 and less than or equal to 10 | 19.5 | 7.8 | 23.4 | 46.8 | 11.7 |
| Greater than 10 and less than or equal to 15 | 23.4 | 9.1 | 28.6 | 57.2 | 14.3 |
| Greater than 15 | 27.3 | 10.4 | 32.5 | 65.0 | 16.9 |

*For other note ratings, see tables 8a and 8c.

Table 8c

Replacement Option 1 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated 'A+' Or Lower*

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Currency Risk Group 1 volatility buffers | | | | | |
| Up to 3 | 2.6 | 1.2 | 3.0 | 6.0 | 1.5 |
| Greater than 3 and less than or equal to 5 | 3.8 | 1.5 | 4.5 | 9.0 | 2.4 |
| Greater than 5 and less than or equal to 10 | 4.5 | 1.8 | 5.4 | 10.8 | 2.7 |

Table 8c

Replacement Option 1 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated 'A+' Or Lower* (cont.)

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Greater than 10 and less than or equal to 15 | 5.4 | 2.1 | 6.6 | 13.2 | 3.3 |
| Greater than 15 | 6.3 | 2.4 | 7.5 | 15.0 | 3.9 |
| Currency Risk Group 2 volatility buffers | | | | | |
| Up to 3 | 3.9 | 1.8 | 4.5 | 9.0 | 2.4 |
| Greater than 3 and less than or equal to 5 | 5.7 | 2.4 | 6.9 | 13.5 | 3.6 |
| Greater than 5 and less than or equal to 10 | 6.9 | 2.7 | 8.1 | 16.2 | 4.2 |
| Greater than 10 and less than or equal to 15 | 8.1 | 3.3 | 9.9 | 19.8 | 5.1 |
| Greater than 15 | 9.6 | 3.6 | 11.4 | 22.5 | 6.0 |
| Currency Risk Group 3 volatility buffers | | | | | |
| Up to 3 | 5.1 | 2.4 | 6.0 | 12.0 | 3.0 |
| Greater than 3 and less than or equal to 5 | 7.5 | 3.0 | 9.0 | 18.0 | 4.8 |
| Greater than 5 and less than or equal to 10 | 9.0 | 3.6 | 10.8 | 21.6 | 5.4 |
| Greater than 10 and less than or equal to 15 | 10.8 | 4.2 | 13.2 | 26.4 | 6.6 |
| Greater than 15 | 12.6 | 4.8 | 15.0 | 30.0 | 7.8 |

*For notes rated above 'A+', see tables 8a and 8b.

Table 9a

Replacement Option 2 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated 'AAA'*

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Currency Risk Group 1 volatility buffers | | | | | |
| Up to 3 | 3 | 2 | 7 | 12 | 3 |
| Greater than 3 and less than or equal to 5 | 4 | 2.5 | 8 | 13 | 4 |
| Greater than 5 and less than or equal to 10 | 5 | 3 | 9 | 14 | 4.5 |
| Greater than 10 and less than or equal to 15 | 6 | 3.5 | 9.5 | 15 | 5 |
| Greater than 15 | 7 | 4 | 10.5 | 16 | 5.5 |

Table 9a

Replacement Option 2 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated 'AAA'* (cont.)

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Currency Risk Group 2 volatility buffers | | | | | |
| Up to 3 | 5 | 3.5 | 11 | 18 | 5 |
| Greater than 3 and less than or equal to 5 | 6 | 4 | 12 | 20 | 6 |
| Greater than 5 and less than or equal to 10 | 8 | 4.5 | 14 | 21 | 7 |
| Greater than 10 and less than or equal to 15 | 9 | 5.5 | 15 | 23 | 8 |
| Greater than 15 | 11 | 6 | 16 | 24 | 9 |
| Currency Risk Group 3 volatility buffers | | | | | |
| Up to 3 | 6 | 4 | 14 | 24 | 6 |
| Greater than 3 and less than or equal to 5 | 8 | 5 | 16 | 26 | 8 |
| Greater than 5 and less than or equal to 10 | 10 | 6 | 18 | 28 | 9 |
| Greater than 10 and less than or equal to 15 | 12 | 7 | 19 | 30 | 10 |
| Greater than 15 | 14 | 8 | 21 | 32 | 11 |

*For notes that we rate below 'AAA', see tables 9b and 9c.

Table 9b

Replacement Option 2 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated In The 'AA' Category*

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Currency Risk Group 1 volatility buffers | | | | | |
| Up to 3 | 2.0 | 1.3 | 4.6 | 7.8 | 2.0 |
| Greater than 3 and less than or equal to 5 | 2.6 | 1.6 | 5.2 | 8.5 | 2.6 |
| Greater than 5 and less than or equal to 10 | 3.3 | 2.0 | 5.9 | 9.1 | 2.9 |
| Greater than 10 and less than or equal to 15 | 3.9 | 2.3 | 6.2 | 9.8 | 3.3 |
| Greater than 15 | 4.6 | 2.6 | 6.8 | 10.4 | 3.6 |
| Currency Risk Group 2 volatility buffers | | | | | |
| Up to 3 | 3.3 | 2.3 | 7.2 | 11.7 | 3.3 |

Table 9b

Replacement Option 2 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated In The 'AA' Category* (cont.)

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Greater than 3 and less than or equal to 5 | 3.9 | 2.6 | 7.8 | 13.0 | 3.9 |
| Greater than 5 and less than or equal to 10 | 5.2 | 2.9 | 9.1 | 13.7 | 4.6 |
| Greater than 10 and less than or equal to 15 | 5.9 | 3.6 | 9.8 | 15.0 | 5.2 |
| Greater than 15 | 7.2 | 3.9 | 10.4 | 15.6 | 5.9 |
| Currency Risk Group 3 volatility buffers | | | | | |
| Up to 3 | 3.9 | 2.6 | 9.1 | 15.6 | 3.9 |
| Greater than 3 and less than or equal to 5 | 5.2 | 3.3 | 10.4 | 16.9 | 5.2 |
| Greater than 5 and less than or equal to 10 | 6.5 | 3.9 | 11.7 | 18.2 | 5.9 |
| Greater than 10 and less than or equal to 15 | 7.8 | 4.6 | 12.4 | 19.5 | 6.5 |
| Greater than 15 | 9.1 | 5.2 | 13.7 | 20.8 | 7.2 |

*For other note ratings, see tables 9a and 9c.

Table 9c

Replacement Option 2 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated 'A+' Or Lower*

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Currency Risk Group 1 volatility buffers | | | | | |
| Up to 3 | 1.0 | 1.0 | 2.1 | 3.6 | 1.0 |
| Greater than 3 and less than or equal to 5 | 1.2 | 1.0 | 2.4 | 3.9 | 1.2 |
| Greater than 5 and less than or equal to 10 | 1.5 | 1.0 | 2.7 | 4.2 | 1.4 |
| Greater than 10 and less than or equal to 15 | 1.8 | 1.1 | 2.9 | 4.5 | 1.5 |
| Greater than 15 | 2.1 | 1.2 | 3.2 | 4.8 | 1.7 |
| Currency Risk Group 2 volatility buffers | | | | | |
| Up to 3 | 1.5 | 1.5 | 3.3 | 5.4 | 1.5 |
| Greater than 3 and less than or equal to 5 | 1.8 | 1.5 | 3.6 | 6.0 | 1.8 |
| Greater than 5 and less than or equal to 10 | 2.4 | 1.5 | 4.2 | 6.3 | 2.1 |

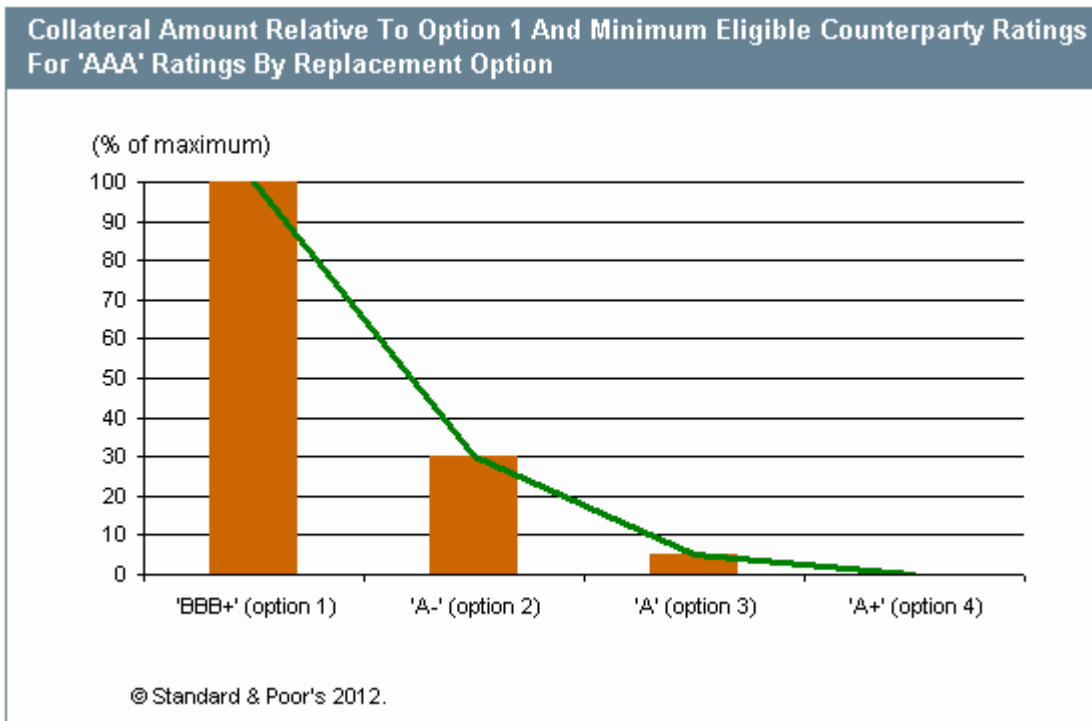
Table 9c

Replacement Option 2 Volatility Buffer By Currency Risk Group (% Of Notional) For Supported Securities Rated 'A+' Or Lower* (cont.)

| Swap tenor--weighted-average life (years) | Interest rate swaps (%) | | Cross currency swaps (%) | | |
|---|-------------------------|----------------------|--------------------------|----------------|----------------------|
| | Fixed to floating | Floating to floating | Fixed to floating | Fixed to fixed | Floating to floating |
| Greater than 10 and less than or equal to 15 | 2.7 | 1.7 | 4.5 | 6.9 | 2.4 |
| Greater than 15 | 3.3 | 1.8 | 4.8 | 7.2 | 2.7 |
| Currency Risk Group 3 volatility buffers | | | | | |
| Up to 3 | 1.8 | 2.0 | 4.2 | 7.2 | 2.0 |
| Greater than 3 and less than or equal to 5 | 2.4 | 2.0 | 4.8 | 7.8 | 2.4 |
| Greater than 5 and less than or equal to 10 | 3.0 | 2.0 | 5.4 | 8.4 | 2.7 |
| Greater than 10 and less than or equal to 15 | 3.6 | 2.2 | 5.7 | 9.0 | 3.0 |
| Greater than 15 | 4.2 | 2.4 | 6.3 | 9.6 | 3.3 |

*For notes rated above 'A+', see tables 9a and 9b.

Chart 2



Appendix 2: Derivatives—Currency Advance Rates For Collateral With Currency Exposure (Tables By Security Rating)

Table 10a

Currency Advance Rates For Collateral With Currency Exposure For 'AAA' Rated Securities

| | U.S. dollar | Euro | Japanese yen | British pound | Canadian dollar | Aust- ralian dollar | Danish krone | Norwegian krone | Swedish krona | Swiss franc | New Zealand dollar | Singa- pore dollar | Hong Kong dollar | New Taiwan dollar | Korean won |
|--------------------|----------------|------|-----------------|------------------|--------------------|---------------------------|-----------------|--------------------|------------------|----------------|--------------------------|--------------------------|------------------------|-------------------------|---------------|
| U.S. dollar | | 92.5 | 92.0 | 94.0 | 95.0 | 92.0 | 92.5 | 92.0 | 92.0 | 92.0 | 91.5 | 95.0 | 98.5 | 96.0 | 88.0 |
| Euro | | | 90.5 | 94.0 | 90.5 | 92.0 | 96.0 | 94.0 | 94.0 | 94.0 | 91.5 | 93.0 | 92.5 | 91.5 | 86.5 |
| Japanese yen | | | | 89.0 | 91.5 | 87.0 | 91.0 | 90.5 | 91.0 | 91.0 | 87.0 | 92.5 | 92.0 | 91.5 | 86.0 |
| British pound | | | | | 91.5 | 92.0 | 94.0 | 92.5 | 92.5 | 92.5 | 91.5 | 92.0 | 94.0 | 93.0 | 87.0 |
| Canadian dollar | | | | | | 92.0 | 92.5 | 92.0 | 92.0 | 92.0 | 91.5 | 94.0 | 95.0 | 94.0 | 87.5 |
| Australian dollar | | | | | | | 91.5 | 91.0 | 91.0 | 90.0 | 94.5 | 90.0 | 92.0 | 91.0 | 86.0 |
| Danish krone | | | | | | | | 95.0 | 95.0 | 96.5 | 91.0 | 92.5 | 92.5 | 92.0 | 86.5 |
| Norwegian krone | | | | | | | | | 94.5 | 94.5 | 91.0 | 92.0 | 92.0 | 92.0 | 86.0 |
| Swedish krona | | | | | | | | | | 94.5 | 91.0 | 92.0 | 92.0 | 91.5 | 86.0 |
| Swiss franc | | | | | | | | | | | 90.0 | 92.0 | 92.0 | 91.5 | 86.0 |
| New Zealand dollar | | | | | | | | | | | | 89.5 | 91.5 | 90.5 | 86.0 |
| Singapore dollar | | | | | | | | | | | | | 95.0 | 94.5 | 88.5 |
| Hong Kong dollar | | | | | | | | | | | | | | 96.0 | 88.0 |
| New Taiwan dollar | | | | | | | | | | | | | | | 88.0 |

Table 10b

Currency Advance Rates For Collateral With Currency Exposure For Securities Rated In The 'AA' Category

| | U.S. dollar | Euro | Japanese yen | British pound | Canadian dollar | Aust- ralian dollar | Danish krone | Norwegian krone | Swedish krona | Swiss franc | New Zealand dollar | Singa- pore dollar | Hong Kong dollar | New Taiwan dollar | Korean won |
|--------------|----------------|------|-----------------|------------------|--------------------|---------------------------|-----------------|--------------------|------------------|----------------|--------------------------|--------------------------|------------------------|-------------------------|---------------|
| U.S. dollar | | 93.5 | 92.5 | 94.5 | 95.5 | 93.0 | 93.5 | 93.0 | 93.0 | 93.0 | 92.5 | 95.5 | 99.0 | 96.5 | 89.5 |
| Euro | | | 91.5 | 94.5 | 91.5 | 92.5 | 96.5 | 94.5 | 94.5 | 94.5 | 92.5 | 91.5 | 93.5 | 92.5 | 88.0 |
| Japanese yen | | | | 90.0 | 92.5 | 89.0 | 92.0 | 91.5 | 92.0 | 92.0 | 88.5 | 93.5 | 92.5 | 92.5 | 88.0 |

Table 10b

Currency Advance Rates For Collateral With Currency Exposure For Securities Rated In The 'AA' Category (cont.)

| | U.S. dollar | Euro | Japanese yen | British pound | Canadian dollar | Aust- ralian dollar | Danish krone | Norwegian krone | Swedish krona | Swiss franc | New Zealand dollar | Singa- pore dollar | Hong Kong dollar | New Taiwan dollar | Korean won |
|--------------------|----------------|------|-----------------|------------------|--------------------|---------------------------|-----------------|--------------------|------------------|----------------|--------------------------|--------------------------|------------------------|-------------------------|---------------|
| British pound | | | | | 92.5 | 93.0 | 94.5 | 93.5 | 93.0 | 93.5 | 92.5 | 93.0 | 94.5 | 93.5 | 88.5 |
| Canadian dollar | | | | | | 93.0 | 93.0 | 93.0 | 93.0 | 92.5 | 90.5 | 94.5 | 95.5 | 94.5 | 89.0 |
| Australian dollar | | | | | | | 92.0 | 92.0 | 92.0 | 91.0 | 95.0 | 91.0 | 93.0 | 92.0 | 87.5 |
| Danish krone | | | | | | | | 95.5 | 95.5 | 97.0 | 92.0 | 93.0 | 93.5 | 93.0 | 88.0 |
| Norwegian krone | | | | | | | | | 95.0 | 95.0 | 92.0 | 92.5 | 93.0 | 92.5 | 88.0 |
| Swedish krona | | | | | | | | | | 95.0 | 92.0 | 93.0 | 93.0 | 92.5 | 87.5 |
| Swiss franc | | | | | | | | | | | 91.0 | 93.0 | 93.0 | 92.5 | 88.0 |
| New Zealand dollar | | | | | | | | | | | | 90.5 | 92.5 | 91.5 | 87.5 |
| Singapore dollar | | | | | | | | | | | | | 95.5 | 95.0 | 89.5 |
| Hong Kong dollar | | | | | | | | | | | | | | 96.5 | 89.5 |
| New Taiwan dollar | | | | | | | | | | | | | | | 89.5 |

Table 10c

Currency Advance Rates For Collateral With Currency Exposure For Securities Rated 'A+' Or Lower

| | U.S. dollar | Euro | Japanese yen | British pound | Canadian dollar | Aust- ralian dollar | Danish krone | Norwegian krone | Swedish krona | Swiss franc | New Zealand dollar | Singa- pore dollar | Hong Kong dollar | New Taiwan dollar | Korean won |
|-------------------|----------------|------|-----------------|------------------|--------------------|---------------------------|-----------------|--------------------|------------------|----------------|--------------------------|--------------------------|------------------------|-------------------------|---------------|
| U.S. dollar | | 94.0 | 93.0 | 95.0 | 96.0 | 93.5 | 94.0 | 93.5 | 93.5 | 93.5 | 93.0 | 96.0 | 99.5 | 97.0 | 90.0 |
| Euro | | | 92.0 | 95.0 | 92.0 | 93.0 | 97.0 | 95.0 | 95.0 | 95.0 | 93.0 | 92.0 | 94.0 | 93.0 | 89.0 |
| Japanese yen | | | | 90.5 | 93.0 | 89.5 | 92.5 | 92.0 | 92.5 | 92.5 | 89.0 | 94.0 | 93.0 | 93.0 | 88.5 |
| British pound | | | | | 93.0 | 93.5 | 95.0 | 94.0 | 93.5 | 94.0 | 93.0 | 93.5 | 95.0 | 94.0 | 89.0 |
| Canadian dollar | | | | | | 93.5 | 93.5 | 93.5 | 93.5 | 93.0 | 91.0 | 95.0 | 96.0 | 95.0 | 89.5 |
| Australian dollar | | | | | | | 92.5 | 92.5 | 92.5 | 91.5 | 95.5 | 91.5 | 93.5 | 92.5 | 88.5 |
| Danish krone | | | | | | | | 96.0 | 96.0 | 97.5 | 92.5 | 93.5 | 94.0 | 93.5 | 88.5 |

Table 10c

Currency Advance Rates For Collateral With Currency Exposure For Securities Rated 'A+' Or Lower (cont.)

| | U.S. dollar | Euro | Japanese yen | British pound | Canadian dollar | Aust- ralian dollar | Danish krone | Norwegian krone | Swedish krona | Swiss franc | New Zealand dollar | Singa- pore dollar | Hong Kong dollar | New Taiwan dollar | Korean won |
|--------------------------|----------------|------|-----------------|------------------|--------------------|---------------------------|-----------------|--------------------|------------------|----------------|--------------------------|--------------------------|------------------------|-------------------------|---------------|
| Norwegian krone | | | | | | | | | 95.5 | 95.5 | 92.5 | 93.0 | 93.5 | 93.0 | 88.5 |
| Swedish krona | | | | | | | | | | 95.5 | 92.5 | 93.5 | 93.5 | 93.0 | 88.0 |
| Swiss franc | | | | | | | | | | | 91.5 | 93.5 | 93.5 | 93.0 | 88.5 |
| New Zealand dollar | | | | | | | | | | | | 91.0 | 93.0 | 92.0 | 88.0 |
| Singapore dollar | | | | | | | | | | | | | 96.0 | 95.5 | 90.0 |
| Hong Kong dollar | | | | | | | | | | | | | | 97.0 | 90.0 |
| New Taiwan dollar | | | | | | | | | | | | | | | 90.0 |

Appendix 3: Treatment Of Variant Features**Maximum potential rating adjustments**

¹¹² Table 11 summarizes the rating approach where counterparty obligations are documented in line with previous versions of Standard & Poor's counterparty criteria (but do not fully meet the current criteria). In most instances, each variation results in a notching down of the maximum potential rating that can be assigned on the supported security by up to three notches, depending on the feature. The adjustments are cumulative for multiple variant features, subject to a floor of the counterparty's ICR plus one notch for any supported security that contains a replacement provision that is in line with previous versions of Standard & Poor's counterparty criteria. This approach is taken to appropriately reflect the relative creditworthiness of securities that benefit from some form of replacement framework, compared with those that do not.

Table 11

Conditions To Obtain The Maximum Potential Rating With Variants And Adjustments (With Paragraph References)

Table 11

Conditions To Obtain The Maximum Potential Rating With Variants And Adjustments (With Paragraph References) (cont.)

Bank accounts, indirect support obligations, direct support obligations, and derivatives

| Criteria | Conditions to obtain the maximum potential rating (tables 1 to 4) | Variant | Adjustment to maximum potential rating for use of a variant |
|--|---|--|---|
| Evidence of an enforceable, legally binding obligation reflecting the new criteria | Any arrangement that is enforceable and legally binding on the counterparty. | | |
| Minimum counterparty rating for replacement (variant applicable to option 1 only) (see paragraphs 16-19) | Counterparty has enforceable legal obligation reflecting the minimum counterparty ratings in table 1 using long-term ratings (or the corresponding short-term rating if the counterparty has no long-term rating) | Enforceable legal obligations reflecting lower minimum counterparty ratings from previous Standard & Poor's criteria versions. | Minus 1 notch |
| Replacement commitment (see paragraphs 28, 41, 42, 60, 61, and 75) | Bank accounts, indirect support obligations, and direct support obligations | Bank accounts, indirect support obligations, and direct support obligations | |
| | "Will replace" | | |
| | Or | | |
| | "Commercially reasonable efforts to replace" and "Will remedy", i.e., commitment to draw-to-cash | | |
| | Or | | |
| | "Commercially reasonable efforts to replace" for bank accounts, if trustee or issuer replacement commitment | | |
| | Derivatives: | Derivatives: | |
| | "Commercially reasonable efforts to replace" depending on the termination provisions (see section on ATE) | "Commercially reasonable efforts to replace" depending on the termination provisions (see section on ATE) | Minus 3 notches |
| Remedy conditions to obtain the maximum potential rating (see paragraphs 29, 30, 43, 44, 62, 63, 77, and 78) | Bank accounts (limited) and direct support obligations: | Bank accounts (limited) and direct support obligations: | |
| | 60 calendar days | 90 calendar days | Minus 1 notch |
| | | Any other variation | Security rating is no higher than the counterparty ICR plus 1 notch |
| | Derivatives: | Derivatives: | |
| | Options 1, 2, and 3: 60 calendar days | 90 calendar days | Minus 1 notch |
| | Option 4: 30 calendar days | 60 calendar days | Minus 1 notch |

Table 11

Conditions To Obtain The Maximum Potential Rating With Variants And Adjustments (With Paragraph References) (cont.)

| | | |
|---|---|---|
| | Any other variation | Security rating is no higher than the counterparty ICR plus 1 notch |
| Bank accounts (minimal) and indirect support obligations: | Bank accounts (minimal) and indirect support obligations: | |
| 30 calendar days | 60 calendar days | Minus 1 notch |
| | Any other variation | Security rating is no higher than the counterparty ICR plus 1 notch |
| For all the above: | | |
| Plus additional 30 days if we receive a written proposal regarding the remedy | | |

Derivatives

| Criteria | Conditions to obtain the maximum potential rating (tables 1 to 4) | Variant | Adjustment to maximum potential rating for use of a variant |
|---|--|---|---|
| Collateral amount calculation (see paragraph 98) | Netting of volatility buffer on a per counterparty basis | | |
| Volatility buffer (see Appendix 1) | Determined using the weighted-average life of the swap, per Standard & Poor's criteria | | |
| | Volatility buffers in Appendix 1 (variant applicable to option 1 only) | Lower volatility buffers from previous Standard & Poor's criteria versions | Minus 3 notches |
| Collateral posting period (see paragraph 81) | 10 business days, plus an additional 10 business days if we receive a written proposal for collateral posting | 30 business days, plus an additional 10 business days if we receive a written proposal for collateral posting | Minus 1 notch |
| | | Any other variation | Security rating is no higher than the counterparty ICR plus 1 notch |
| Additional termination event (ATE) (see paragraphs 109-111) | Failure to replace | Failure to use "commercially reasonable efforts" to replace | Minus 3 notches |
| | Failure to replace, only if bid received from potential replacement counterparty, provided breach of agreement applies | Failure to replace, only if bid received from potential replacement counterparty | Minus 3 notches |
| Additional collateral amounts for no ATE (see paragraphs 115 and 116) | Additional collateral amount capped at 100% of swap notional | Cap at percentage of swap notional: | |
| | | 75% | Minus 1 notch |
| | | 50% | Minus 2 notches |

Table 11

Conditions To Obtain The Maximum Potential Rating With Variants And Adjustments (With Paragraph References) (cont.)

| | 25% | Minus 3 notches |
|--|---|---|
| Eligible collateral (see paragraphs 85-88, Appendix 2) | Any variation | Security rating is no higher than the counterparty ICR plus 1 notch |
| | o Cash | |
| | o Government securities rated as high as notes | |
| | o Other securities listed in Standard & Poor's market value criteria as published from time to time, subject to liability haircuts for the next lower rating category | |

ICR--Issuer credit rating.

Collateral posting

- 113. If the supported security was originally rated using previous versions of Standard & Poor's counterparty criteria and was downgraded as a result of an adjustment to the maximum potential rating for the use of a variant, then collateral posting reflecting the current rating, not the original rating, is consistent with these criteria.

Adjustments for securities without an SPE right to terminate

- 114. These criteria require higher volatility buffers (1.25x) and additional collateral for securities where the applicable derivative agreement does not include an ATE for a failure to replace itself or remedy.
- 115. For all replacement options, the counterparty agrees to post increasing collateral amounts if it fails to replace itself or remedy when necessary. The required collateral amounts are based on the time elapsed (see table 12). The amount of the additional collateral is capped at 100% of the derivative's notional amount. The burden to post increasing collateral amounts provides the counterparty with an incentive to replace itself as quickly as possible. If a counterparty fails to replace itself despite the collateral posting burden, the rating on the supported security may be reassessed.

Table 12

Additional Collateral Posting Standards For A Counterparty Failure To Replace Itself Or Remedy (Where There Is No ATE)

| Time since the event | Additional percentage of notional amount per week |
|----------------------|---|
| Within 1-4 weeks | 0.0% |
| Within 5-8 weeks | 1.0% |
| Within 9-12 weeks | 2.0% |
| After 12 weeks | 2.5% |

ATE--Additional termination event.

116. The maximum potential rating will be reduced if additional collateral amounts are capped (in the documents) at less than 100% of the swap notional, as this may reduce the counterparty's incentive to replace itself. Downward adjustments to the maximum potential rating are:
- One notch for a cap of 75% of the swap notional,
 - Two notches for a cap of 50% of the swap notional, and
 - Three notches for a cap of 25% of the swap notional.

Example—Calculation of collateral (where there is no ATE)

117. Consider a five-year fixed-to-floating interest rate swap supporting a 'AAA' rated security (under replacement option 1). The security is structured without an ATE, so the volatility buffer is 1.25 multiplied by 12.5% (see table 8a), or 15.625%. During the first four weeks after a triggering event (downgrade), the collateral amount is the mark-to-market portion, plus 15.625% of the notional balance (but not less than zero). If the counterparty fails to replace itself or remedy, the collateral amount increases by 1% per week over the next four weeks so that by the eighth week, the collateral amount is the mark-to-market portion plus collateral equal to 19.625% of the notional balance. If this were to continue, the collateral amount would be 27.625% by the 12th week, 30.125% by the 13th week, and so on until the additional collateral amount reaches 100% of the swap notional. Upon replacement of the counterparty with another counterparty that satisfies the minimum eligible counterparty rating, these additional collateral amounts would no longer apply.
118. A timeline for how the additional collateral amount increases is shown in table 13. The volatility buffer and additional collateral amount percentages apply to the notional balance of the swap.

Table 13

Timeline For The Additional Collateral Amount (Where There Is No ATE)

| Date | Collateral amount |
|---|---|
| Before April 5 | |
| Counterparty rated 'BBB+' as per option 1 | MTM + (1.25 x VB) |
| April 5 | |
| Counterparty rating lowered to 'BBB' or lower as per option 1 | MTM + (1.25 x VB) + additional collateral amount of 0% |
| After four weeks | |
| May 3 | MTM + (1.25 x VB) + additional collateral amount of 1% |
| May 10 | MTM + (1.25 x VB) + additional collateral amount of 2% |
| May 17 | MTM + (1.25 x VB) + additional collateral amount of 3% |
| May 24 | MTM + (1.25 x VB) + additional collateral amount of 4% |
| May 31 | MTM + (1.25 x VB) + additional collateral amount of 6% |
| June 7 | MTM + (1.25 x VB) + additional collateral amount of 8% |
| June 14 | MTM + (1.25 x VB) + additional collateral amount of 10% |
| June 21 | MTM + (1.25 x VB) + additional collateral amount of 12% |
| June 28 | MTM + (1.25 x VB) + additional collateral amount of 14.5% |
| July 5 | MTM + (1.25 x VB) + additional collateral amount of 17% |
| July 12 | MTM + (1.25 x VB) + additional collateral amount of 19.5% |

Table 13

Timeline For The Additional Collateral Amount (Where There Is No ATE) (cont.)

| Date | Collateral amount |
|------|---|
| | This weekly calculation continues until the additional collateral amount reaches 100% of the swap notional. |

Note: MTM--mark-to-market value of the derivative that may be netted against the VB. VB--Volatility buffer as a percentage of the swap notional. ATE--Additional termination event.

Appendix 4: Derivatives—Examples Of Replacement Options

EXAMPLE 1: Replacement Option 1

Minimum eligible counterparty rating with collateral: 'BBB+'

ICR of counterparty: 'A-'

Variant features: None

What is the assigned rating?

Assigned rating is 'AAA', which is the higher of:

- Counterparty ICR = 'A-'
- Maximum potential rating = 'AAA'

At what rating levels does the counterparty post collateral prior to replacement being triggered? How much?

'A-' and 'BBB+': The mark-to-market value plus option 1 volatility buffer for securities rated 'AAA' (see table 8a)

At what rating level does the counterparty replace itself? What is the collateral amount?

'BBB' or below: The mark-to-market value plus option 1 volatility buffer for securities rated 'AAA' (see table 8a)

EXAMPLE 2: Replacement Option 1 With Alternative Features

Minimum eligible counterparty rating with collateral: 'BBB+'

ICR of counterparty: 'A-'

Variant features:

- Lower volatility buffer calculation: Minus three notches

- No external marks: No adjustment

What is the assigned rating?

Assigned rating is 'AA-', which is the higher of:

- Counterparty ICR plus one notch = 'A'
- Maximum potential rating = 'AAA' reduced by three notches = 'AA-'

At what rating levels does the counterparty post collateral prior to replacement being triggered? How much?

'BBB+' and 'BBB': Collateral amount as indicated in the document reflecting previous versions of Standard & Poor's counterparty criteria

At what rating level does the counterparty replace itself? What is the collateral amount?

'BBB-' or below: Collateral amount as indicated in the document reflecting previous versions of Standard & Poor's counterparty criteria

EXAMPLE 3: Replacement Option 2

Minimum eligible counterparty rating with collateral: 'A-'

ICR of counterparty: 'A'

Variant features: None

What is the assigned rating?

Assigned rating is 'AAA', which is the higher of:

- Counterparty ICR = 'A'
- Maximum potential rating = 'AAA'

At what rating level does the counterparty post collateral prior to replacement being triggered? How much?

'A-': The collateral amount is the mark-to-market value multiplied by 1.25

At what rating level does the counterparty replace itself? What is the collateral amount?

'BBB+' or below: The collateral amount is the higher of:

- Mark-to-market value plus option 2 volatility buffer for securities rated 'AAA' (see table 9a)

- Mark-to-market value multiplied by 1.3

EXAMPLE 4: Replacement Option 3

Minimum eligible counterparty rating: 'A'

ICR of counterparty: 'A'

Variant features: None

What is the assigned rating?

Assigned rating is 'AAA', which is the higher of:

- Counterparty ICR = 'A'
- Maximum potential rating = 'AAA'

At what rating level does the counterparty post collateral prior to replacement being triggered? How much?

There is no collateral posting prior to replacement being triggered

At what rating level does the counterparty replace itself? What is the collateral amount?

'A-' or below: The collateral amount is the mark-to-market value multiplied by 1.25

EXAMPLE 5: Replacement Option 4

Minimum eligible counterparty rating: 'A+'

ICR of counterparty: 'A+'

Variant features: None

What is the assigned rating?

Assigned rating is 'AAA', which is the higher of:

- Counterparty ICR = 'A+'
- Maximum potential rating = 'AAA'

At what rating level does the counterparty post collateral prior to replacement being triggered? How much?

There is no collateral posting prior to replacement being triggered

At what rating level does the counterparty replace itself? What is the collateral amount?

'A' or below: There is no collateral posting (provided the swap has an ATE feature)

Appendix 5: Comparison For Nonderivative Exposures

Table 14

Minimum Eligible Counterparty Ratings: Comparative Table For Nonderivative Exposures

From tables 1 to 3

| Maximum potential rating on supported security | Minimum eligible counterparty rating | | | |
|--|--------------------------------------|---|--|--|
| | Funded synthetic structure | Direct support obligation (substantial) | Direct support obligation (limited). Bank account (limited). Commingling risk (limited). | Indirect support obligation. Bank account (minimal). Commingling risk (minimal). |
| AAA | AA+ | AA | A | BBB |
| AA+ | AA | AA | A | BBB |
| AA | AA- | AA- | A- | BBB |
| AA- | Security rating | Security rating | A- | BBB- |
| A+ | Security rating | Security rating | BBB+ | BBB- |
| A | Security rating | Security rating | BBB | BBB- |
| A- | Security rating | Security rating | BBB- | BB+ |
| BBB+ | Security rating | Security rating | BBB- | BB+ |
| BBB | Security rating | Security rating | BBB- | BB |
| BBB- | Security rating | Security rating | Security rating | BB |
| BB+ | Security rating | Security rating | Security rating | BB |
| BB and below | Security rating | Security rating | Security rating | Security rating |

1. For purposes of inferring a long-term minimum eligible rating for entities that have only short-term ratings, or in transactions where only short-term ratings on the counterparty are referenced, the following apply:

o 'A-1+' corresponds to 'AA-'.

o 'A-1' corresponds to 'A' for financial institutions, and 'A-' for all other entities.

o 'A-2' corresponds to 'BBB'.

o 'A-3' corresponds to 'BBB-'.

2. To meet the minimum eligible rating of 'A', the entity should also have a short-term rating of 'A-1'.

3. To meet the minimum eligible rating of 'BBB', the entity should also have a short-term rating of 'A-2'.

ICR--Issuer credit rating.

Appendix 6: Summary Of Criteria Update

119. These criteria adopt the proposed changes outlined in the RFC, most notably the expanded framework for derivatives and the classification of certain types of bank accounts as direct limited support. Furthermore, these criteria revise key aspects of the framework for derivatives.
120. These changes to the general framework, and in particular the criteria revisions for derivatives, further support the replacement premise by providing for additional replacement options, enhancing swap agreement liquidity, and reducing swap transaction costs.
121. Since the implementation of "the Dec. 6, 2010 framework" (comprising "Counterparty And Supporting Obligations Methodology And Assumptions," published Dec. 6, 2010, "Counterparty And Supporting Obligations Update," published Jan. 13, 2011, "Expanding The Scope of Counterparty Criteria To Corporate And Government Ratings," published June 21, 2011, and "Global Counterparty And Supporting Obligations Framework For Classifying Currencies," published June 28, 2011) and throughout the RFC period, we have considered market feedback and monitored market developments. The expanded framework for derivatives may be applied by a wider range of counterparties depending on their motivations, ratings, and sensitivity to collateral costs.
122. The changes from the Dec. 6, 2010 framework are, as follows:

Derivatives

123. **Expanded replacement framework.** These criteria view that similar credit quality may be achieved through balancing the minimum eligible counterparty rating (or the replacement trigger) and the collateral amount. Therefore, the criteria expand to four from one the number of combinations of minimum eligible counterparty ratings and collateral amounts, where higher minimum eligible counterparty ratings result in lower collateral amounts. These criteria consider that the commitment to replace at a higher rating level balances the need for collateral as an incentive to replace, because the security rating is closer to the counterparty's ICR. Option 1 reflects the Dec. 6, 2010 framework for minimum eligible counterparty ratings and collateral amounts. Options 2, 3, and 4 require higher minimum eligible counterparty ratings, but lower collateral amounts to achieve the same rating on a supported security (see paragraphs 68-69 and table 4).
124. **Documentation of multiple options.** Because the criteria view the different replacement options as achieving comparable credit quality, a structure that outlines upfront one or all of the replacement options to support the same maximum potential rating is consistent with the criteria framework (see paragraphs 70-71).
125. **More market-standard features to increase liquidity.** These changes should result in more market-standard derivative instruments, leading to increased liquidity. The changes are consistent with assigning the maximum potential rating, provided there are structural features that enhance the likelihood of counterparty replacement (see paragraphs 109-111). The role of the collateral remains to facilitate counterparty replacement, so that the collateral continues to provide an economic incentive to replace, but the terms in the agreement do not impede replacement by being too onerous. These changes are the following:
- External marks: These criteria remove the requirement for the provision of external marks for all replacement options.

- Netting: These criteria expand the netting provision. These criteria allow for netting the derivative contract's value against an applicable volatility buffer, when the value of the contract is in favor of the counterparty. Prior to this expansion, netting was possible only if a counterparty provided a firm commitment to replace itself (see paragraph 98).
- Volatility buffers—use of weighted-average life (WAL): These criteria now determine applicable volatility buffers according to the derivative agreement's weighted-average life. The calculation of WAL should be based on a prepayment rate of 0%, or such other stressed low prepayment rate as indicated in the relevant criteria for the hedged asset or liability (see paragraph 99).
- Volatility buffers for securities rated below 'AAA': These criteria introduce lower volatility buffers for supported securities rated below 'AAA'. The reduced volatility buffers reflect lower stresses applied to the lower ratings, as well as the fact that the maximum potential rating is closer to the counterparty's ICR. For securities rated in the 'AA' category and those rated 'A+' or lower, the volatility buffers are respectively about 65% and 30% of the applicable levels for 'AAA' ratings (see Appendix 1).
- Currency of the collateral: These criteria now accommodate posted collateral in currencies other than that of a derivative counterparty's payment obligation. This is subject to the counterparty posting additional collateral to address the foreign exchange risk and the counterparty's payment obligation and posted collateral being denominated in currencies classified in currency risk groups 1 or 2 (see Appendix 2).

126. **Contingent right to terminate.** These criteria clarify that if an SPE's right to terminate a derivative contract after a counterparty has failed to replace itself is contingent on a bid by a potential replacement counterparty, then a breach of agreement should apply to the counterparty and it should covenant to replace as soon as reasonably practicable (rather than "within the remedy period") (see paragraph 110).

127. **Failing to implement remedies on obligations.** These criteria clarify that if a counterparty fails to implement remedies relating to a supported security, then ratings may be lowered on other supported securities with similar obligations from the same counterparty (see paragraph 20).

Direct support obligations

128. **Limited exposure.** These criteria classify bank accounts classified as direct support obligations under the Dec. 6, 2010 framework as direct limited support, except for bank accounts collateralized by cash in funded synthetic structures. This change decreases the minimum eligible counterparty rating for the affected accounts. However, the minimum eligible counterparty rating for bank accounts collateralized by cash in funded synthetic transactions and other functionally equivalent obligations in those transactions has increased, such that the rating on these securities will be no higher than one notch above the relevant counterparty's ICR.

Other changes

129. **Categories.** These criteria reclassify the previous three categories of counterparty risk under the Dec. 6, 2010 framework (namely other support obligations, direct support obligations, and derivatives) into four categories: bank accounts, indirect support obligations, direct support obligations, and derivatives. The associated minimum eligible counterparty ratings have not changed. The reclassification serves to improve clarity and ease of application of the criteria as it

pertains to certain types of obligations.

130. **Currency risk framework.** Reserve currencies are classified in group 1. The currencies that are currently considered reserve currencies include British pound sterling, euro, Japanese yen, and U.S. dollar (see paragraph 91).
131. **Temporary investments.** These criteria do not apply to temporary investments that fall under the scope of "Global Investment Criteria For Temporary Investments In Transaction Accounts," published May 31, 2012.
132. These criteria supersede or partially supersede the articles below.

Superseded

- Global Counterparty And Supporting Obligations Framework For Classifying Currencies, June 28, 2011
- Expanding The Scope of Counterparty Criteria To Corporate And Government Ratings, June 21, 2011
- Counterparty And Supporting Obligations Update, Jan. 13, 2011
- Counterparty And Supporting Obligations Methodology And Assumptions, Dec. 6, 2010
- Criteria for Rating Luxembourg Lettres de Gage Publiques, published Nov. 20, 2001.

Partially superseded

- Updated Criteria For Deposit Insurance For Commingling Risk In Japan RMBS Deals, Dec. 6, 2010
- Methodology And Assumptions For Rating Japanese Credit Card And Consumer Loan Securitizations, Sept. 29, 2010
- Methodology And Assumptions For Rating Japanese Lease Receivables Securitizations, May 11, 2010
- Criteria For Rating Swedish Covered Bonds, June 20, 2006
- Equipment Leasing Criteria: Credit Risks Evaluated In Lease-Backed Securitizations, Sept. 1, 2004
- Equipment Leasing Criteria: Legal Considerations In Rating Lease-Backed Transactions, Sept. 1, 2004
- U.S. Residential Subprime Mortgage Criteria: Legal Criteria For Subprime Mortgage Transactions, Sept. 1, 2004

Appendix 7: Glossary Of Terms

Additional collateral amount

If the security does not include an additional termination event (ATE), the amount of additional

collateral a derivative counterparty posts after it is required to remedy a breach of the minimum eligible counterparty rating for replacement. The additional collateral amount applies to all four replacement options.

Additional termination event (ATE)

A provision that allows a trustee to terminate a swap before its maturity.

Bank account

For purposes of these criteria, an on-demand deposit. It is one of the four categories of counterparty obligations.

Collateral amount

The amount of collateral a derivative counterparty is required to post under these criteria.

Currency risk group

The risk category to which the criteria assign currencies, ranging from group 1 (lowest risk) to group 4 (highest risk).

Derivative

These criteria use the term "derivative" interchangeably with "swap".

Direct support obligation

A counterparty obligation that provides direct credit support or liquidity support to a security.

Direct limited support

A counterparty obligation that does not fit the definitions for bank accounts, indirect support obligations, direct substantial support obligations, or derivatives.

Direct substantial support

A direct support obligation with a typical exposure amount greater than 5% of the original pool balance (or current pool balance if applicable), and an exposure period greater than 365 days.

Eligible counterparty

A counterparty whose ICR is at least the minimum eligible counterparty rating.

External marks

Marks on swaps provided by a counterparty, from an entity that is independent from the counterparty and that is able to enter into the type of obligation being priced (e.g., a bank, broker/dealer, or insurance company).

Indirect support obligation

To qualify for treatment as an indirect support obligation under these criteria, (i) the aggregated exposure to the counterparty is expected to be small (e.g., typically no more than 5% of the original pool balance or, for revolving structures and programs with ongoing issuance, the higher of the original and current pool balances); (ii) the replacement period is up to 30 calendar days; and (iii) the analysis should show that either:

- The impact of a counterparty's failure to perform is not likely to cause a direct disruption of payments on the supported security during the replacement period; or
- An adverse impact on the supported security would only be likely to result from the occurrence of multiple events.

Issuer credit rating (ICR)

Standard & Poor's issuer credit rating, either public or private.

Maximum potential rating on supported security

The maximum rating that could be assigned to a security for a given minimum eligible counterparty rating.

Minimum eligible counterparty rating

The lowest counterparty rating that can support a given maximum potential rating on a security prior to the remedy commitment coming into effect.

Minimum eligible counterparty rating without collateral

For replacement options 1 and 2 only, the lowest counterparty rating that can support a given maximum potential rating on a security prior to posting collateral.

Minimum eligible counterparty rating with collateral

For replacement options 1 and 2 only, the lowest counterparty rating prior to the remedy commitment coming into effect and at which the counterparty is posting collateral.

Remedy

The cure following a counterparty's rating falling below the minimum eligible counterparty rating.

These include replacing with an eligible counterparty or obtaining an appropriately rated guarantor. For certain obligations, prefunding the obligation, drawing-to-cash, or funding a reserve is required if a suitable remedy has not been found.

Remedy period

The period during which the counterparty must provide a remedy.

Replacement principle

The basic premise that a security rating may be higher than the ICR on the counterparty because an ineligible counterparty can be replaced within a short time.

Temporary investment

Investment in which cash from collections or held in a reserve account is invested according to a transaction's investment guidelines (see "Global Investment Criteria For Temporary Investments In Transaction Accounts," published May 31, 2012).

Variant features

Variations in the structural features of a counterparty obligation, which according to these criteria leads to a downward adjustment of the maximum potential rating on a supported security.

Volatility buffer

A component of the collateral amount calculated as a percentage of the swap notional amount.

REVISIONS AND UPDATES

This article was originally published on June 25, 2013. These criteria became effective immediately from the date of publication and were applicable to all new and outstanding ratings within scope.

Changes introduced after original publication:

- Following our periodic review completed on June 20, 2017, we updated references to related criteria and clarified table footnotes related to minimum short-term ratings, as well as tables in Appendix 2 related to currency advance rates for collateral with currency exposure.
- We republished this article on May 22, 2018, to implement a nonmaterial change. We updated the contact information and tables in Appendix 2 related to currency advance rates for collateral with exposure to the Korean won.
- Following our periodic review completed on June 20, 2018, we updated criteria references.

RELATED CRITERIA AND RESEARCH

Related Criteria

- S&P Global Ratings Definitions, April 19, 2018
- Sovereign Rating Methodology, Dec. 18, 2017
- Foreign Exchange Risk In Structured Finance--Methodology And Assumptions, April 21, 2017
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs, Aug. 8, 2016
- Methodology and Assumptions For Rating Jointly Supported Financial Obligations, May 23, 2016
- Counterparty Risk Analysis In Covered Bonds, Dec. 21, 2015
- Methodology And Assumptions For Rating Japanese RMBS, Dec. 19, 2014
- Global Methodology And Assumptions For Assessing The Credit Quality Of Securitized Consumer Receivables, Oct. 9, 2014
- Counterparty Risk In Terminating Transactions, Aug. 15, 2014
- Methodology And Assumptions For Market Value Securities, Sept. 17, 2013
- Methodology And Assumptions: Assigning Ratings To Bonds In The U.S. Based On Escrowed Collateral, Nov. 30, 2012
- Global Investment Criteria For Temporary Investments In Transaction Accounts, May 31, 2012
- Assessing Credit Quality By The Weakest Link, Feb. 13, 2012
- Principles Of Credit Ratings, Feb. 16, 2011
- Methodology And Assumptions For Rating Japanese Lease Receivables Securitizations, May 11, 2010
- Legal Criteria For U.S. Structured Finance Transactions: Criteria Related To Asset-Backed Securities, Oct. 1, 2006
- Legal Criteria For U.S. Structured Finance Transactions: Securitizations By Code Transferors, Oct. 1, 2006
- Legal Criteria For U.S. Structured Finance Transactions: Special-Purpose Entities, Oct. 1, 2006
- Equipment Leasing Criteria: Credit Risks Evaluated In Lease-Backed Securitizations, Sept. 1, 2004

Watch the related CreditMatters TV segments titled "Standard & Poor's Publishes Revised Counterparty Framework," and "How Standard & Poor's Revised Counterparty Criteria Framework Affects Covered Bonds," dated May 31, 2012.

These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as Standard & Poor's Ratings Services' assessment of the credit and, if applicable, structural risks

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

for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment.

Contact List

PRIMARY CONTACTS

Andrew D Palmer
Melbourne
(61) 3-9631-2052
andrew.palmer@spglobal.com

PRIMARY CONTACTS

Herve-Pierre P Flammier
Paris
(33) 1-4420-7338
herve-pierre.flammier@spglobal.com

PRIMARY CONTACTS

Claire K Robert
Paris
(33) 1-4420-6681
claire.robert@spglobal.com

SECONDARY CONTACT

Takamasa Yamaoka
Tokyo
(81) 3-4550-8719
takamasa.yamaoka@spglobal.com

SECONDARY CONTACT

Vera Chaplin
Melbourne
(61) 3-9631-2058
vera.chaplin@spglobal.com

SECONDARY CONTACT

Philip A Baggaley, CFA
New York
(1) 212-438-7683
philip.baggaley@spglobal.com

SECONDARY CONTACT

Katrien Van Acoleyen
London
(44) 20-7176-3860
katrien.vanacoleyen@spglobal.com

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