Federal Reserve System

§ 217.134 Guarantees and credit derivatives: PD substitution and LGD adjustment approaches.

(a) Scope. (1) This section applies to wholesale exposures for which:

(i) Credit risk is fully covered by an eligible guarantee or eligible credit derivative; or

(ii) Credit risk is covered on a pro rata basis (that is, on a basis in which the Board-regulated institution and the protection provider share losses proportionately) by an eligible guarantee or eligible credit derivative.

(2) Wholesale exposures on which there is a tranching of credit risk (reflecting at least two different levels of seniority) are securitization exposures subject to §217.141 through §217.145.

(3) A Board-regulated institution may elect to recognize the credit risk mitigation benefits of an eligible guarantee or eligible credit derivative covering an exposure described in paragraph (a)(1) of this section by using the PD substitution approach or the LGD adjustment approach in paragraph (c) of this section or, if the transaction qualifies, using the double default treatment in §217.135. A Board-regulated institution’s PD and LGD for the hedged exposure may not be lower than the PD and LGD floors described in §217.131(d)(2) and (d)(3).

(4) If multiple eligible guarantees or eligible credit derivatives cover a single exposure described in paragraph (a)(1) of this section, a Board-regulated institution may treat the hedged exposure as multiple separate exposures each covered by a single eligible guarantee or eligible credit derivative and may calculate a separate risk-based capital requirement for each separate exposure as described in paragraph (a)(3) of this section.

(b) Rules of recognition. (1) A Board-regulated institution may only recognize the credit risk mitigation benefits of eligible guarantees and eligible credit derivatives.

(2) A Board-regulated institution may only recognize the credit risk mitigation benefits of an eligible credit derivative to hedge an exposure that is different from the credit derivative’s reference exposure used for determining the derivative’s cash settlement value, deliverable obligation, or occurrence of a credit event if:

(i) The reference exposure ranks pari passu (that is, equally) with or is junior to the hedged exposure; and

(ii) The reference exposure and the hedged exposure are exposures to the same legal entity, and legally enforceable cross-default or cross-acceleration clauses are in place to assure payments...
under the credit derivative are triggered when the obligor fails to pay under the terms of the hedged exposure.

(c) Risk parameters for hedged exposures—

(1) PD substitution approach—

(i) Full coverage. If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is greater than or equal to the EAD of the hedged exposure, a Board-regulated institution may recognize the guarantee or credit derivative in determining the Board-regulated institution’s risk-based capital requirement for the hedged exposure by substituting the PD associated with the rating grade of the protection provider for the PD associated with the rating grade of the obligor in the risk-based capital formula applicable to the guarantee or credit derivative in Table 1 of §217.131 and using the appropriate LGD as described in paragraph (c)(1)(iii) of this section. If the Board-regulated institution determines that full substitution of the protection provider’s PD leads to an inappropriate degree of risk mitigation, the Board-regulated institution may substitute a higher PD than that of the protection provider.

(ii) Partial coverage. If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is less than the EAD of the hedged exposure, the Board-regulated institution must treat the hedged exposure as two separate exposures (protected and unprotected) in order to recognize the credit risk mitigation benefit of the guarantee or credit derivative.

(A) The Board-regulated institution must calculate its risk-based capital requirement for the protected exposure under §217.131, where PD is the protection provider’s PD, LGD is determined under paragraph (c)(1)(iii) of this section, and EAD is P. If the Board-regulated institution determines that full substitution leads to an inappropriate degree of risk mitigation, the Board-regulated institution may use a higher PD than that of the protection provider.

(B) The Board-regulated institution must calculate its risk-based capital requirement for the unprotected exposure under §217.131, where PD is the obligor’s PD, LGD is the hedged exposure’s LGD (not adjusted to reflect the guarantee or credit derivative), and EAD is the EAD of the original hedged exposure minus P.

(C) The treatment in paragraph (c)(1)(i) of this section is applicable when the credit risk of a wholesale exposure is covered on a partial pro rata basis or when an adjustment is made to the effective notional amount of the guarantee or credit derivative under paragraphs (d), (e), or (f) of this section.

(iii) LGD of hedged exposures. The LGD of a hedged exposure under the PD substitution approach is equal to:

(A) The lower of the LGD of the hedged exposure (not adjusted to reflect the guarantee or credit derivative) and the LGD of the guarantee or credit derivative, if the guarantee or credit derivative provides the Board-regulated institution with the option to receive immediate payout upon triggering the protection; or

(B) The LGD of the guarantee or credit derivative, if the guarantee or credit derivative does not provide the Board-regulated institution with the option to receive immediate payout upon triggering the protection.

(2) LGD adjustment approach. (i) Full coverage. If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is greater than or equal to the EAD of the hedged exposure, the Board-regulated institution’s risk-based capital requirement for the hedged exposure is the greater of:

(A) The risk-based capital requirement for the exposure as calculated under §217.131, where PD is the protection provider’s PD, LGD is determined under paragraph (c)(1)(iii) of this section, and EAD is P. If the Board-regulated institution determines that full substitution leads to an inappropriate degree of risk mitigation, the Board-regulated institution may use a higher PD than that of the protection provider.

(B) The risk-based capital requirement for a direct exposure to the protection provider as calculated under §217.131, using the PD for the protection provider, the LGD for the guarantee or credit derivative, and an EAD
equal to the EAD of the hedged exposure.

(ii) Partial coverage. If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is less than the EAD of the hedged exposure, the Board-regulated institution must treat the hedged exposure as two separate exposures (protected and unprotected) in order to recognize the credit risk mitigation benefit of the guarantee or credit derivative.

(A) The Board-regulated institution’s risk-based capital requirement for the protected exposure would be the greater of:

(i) The risk-based capital requirement for the protected exposure as calculated under §217.131, with the LGD of the exposure adjusted to reflect the guarantee or credit derivative and EAD set equal to P; or

(ii) The risk-based capital requirement for a direct exposure to the guarantor as calculated under §217.131, using the PD for the protection provider, the LGD for the guarantee or credit derivative, and an EAD set equal to P.

(B) The Board-regulated institution must calculate its risk-based capital requirement for the unprotected exposure under §217.131, where PD is the obligor’s PD, LGD is the hedged exposure’s LGD (not adjusted to reflect the guarantee or credit derivative), and EAD is the EAD of the original hedged exposure minus P.

(3) M of hedged exposures. For purposes of this paragraph (c), the M of the hedged exposure is the same as the M of the exposure if it were unhedged.

(d) Maturity mismatch. (1) A Board-regulated institution that recognizes an eligible guarantee or eligible credit derivative in determining its risk-based capital requirement for a hedged exposure must adjust the effective notional amount of the credit risk mitigant to reflect any maturity mismatch between the hedged exposure and the credit risk mitigant.

(2) A maturity mismatch occurs when the residual maturity of a credit risk mitigant is less than that of the hedged exposure(s).

(3) The residual maturity of a hedged exposure is the longest possible remaining time before the obligor is scheduled to fulfill its obligation on the exposure. If a credit risk mitigant has embedded options that may reduce its term, the Board-regulated institution (protection purchaser) must use the shortest possible residual maturity for the credit risk mitigant. If a call is at the discretion of the protection provider, the residual maturity of the credit risk mitigant is at the first call date. If the call is at the discretion of the Board-regulated institution (protection purchaser), but the terms of the arrangement at origination of the credit risk mitigant contain a positive incentive for the Board-regulated institution to call the transaction before contractual maturity, the remaining time to the first call date is the residual maturity of the credit risk mitigant.26

(4) A credit risk mitigant with a maturity mismatch may be recognized only if its original maturity is greater than or equal to one year and its residual maturity is greater than three months.

(5) When a maturity mismatch exists, the Board-regulated institution must apply the following adjustment to the effective notional amount of the credit risk mitigant:

\[ P_m = E \times \left( \frac{t}{T} \right)^{0.25}, \]

where:

(i) \( P_m \) = effective notional amount of the credit risk mitigant, adjusted for maturity mismatch;

(ii) \( E \) = effective notional amount of the credit risk mitigant;

(iii) \( t \) = the lesser of \( T \) or the residual maturity of the credit risk mitigant, expressed in years; and

(iv) \( T \) = the lesser of five or the residual maturity of the hedged exposure, expressed in years.

(e) Credit derivatives without restructuring as a credit event. If a Board-regulated institution recognizes an eligible

---

26For example, where there is a step-up in cost in conjunction with a call feature or where the effective cost of protection increases over time even if credit quality remains the same or improves, the residual maturity of the credit risk mitigant will be the remaining time to the first call.

(a) Eligibility and operational criteria for double default treatment. A Board-regulated institution may recognize the credit risk mitigation benefits of a guarantee or credit derivative covering an exposure described in §217.134(a)(1) by applying the double default treatment in this section if all the following criteria are satisfied:

1. The hedged exposure is fully covered or covered on a pro rata basis by:
   (i) An eligible guarantee issued by an eligible double default guarantor; or
   (ii) An eligible credit derivative that meets the requirements of §217.134(b)(2) and that is issued by an eligible double default guarantor.

2. The guarantee or credit derivative is:
   (i) An uncollateralized guarantee or uncollateralized credit derivative (for example, a credit default swap) that provides protection with respect to a single reference obligor; or
   (ii) An n-th-to-default credit derivative (subject to the requirements of §217.142(m).

3. The hedged exposure is a wholesale exposure (other than a sovereign exposure).

4. The obligor of the hedged exposure is not:
   (i) An eligible double default guarantor or an affiliate of an eligible double default guarantor; or
   (ii) An affiliate of the guarantor.

5. The Board-regulated institution does not recognize any credit risk mitigation benefits of the guarantee or credit derivative for the hedged exposure other than through application of the double default treatment as provided in this section.


(f) Currency mismatch. (1) If a Board-regulated institution recognizes an eligible guarantee or eligible credit derivative that is denominated in a currency different from that in which the hedged exposure is denominated, the Board-regulated institution must apply the following formula to the effective notional amount of the guarantee or credit derivative:

\[ P_c = P_r \times (1 - H_{FX}) \]

where:

(i) \( P_c \) = effective notional amount of the credit risk mitigant, adjusted for currency mismatch (and maturity mismatch and lack of restructuring event, if applicable); and

(ii) \( P_r \) = effective notional amount of the credit risk mitigant adjusted for maturity mismatch (and lack of restructuring event, if applicable).

(2) A Board-regulated institution must set \( H_{FX} \) equal to 8 percent unless it qualifies for the use of and uses its own internal estimates of foreign exchange volatility based on a ten-business-day holding period and daily marking-to-market and remargining. A Board-regulated institution qualifies for the use of its own internal estimates of foreign exchange volatility if it qualifies for:

(i) The own-estimates haircuts in §217.132(b)(2)(iii); or

(ii) The simple VaR methodology in §217.132(b)(3); or

(iii) The internal models methodology in §217.132(d).

(b) If the Board-regulated institution revalues the guarantee or credit derivative less frequently than once every ten business days using the square root of time formula provided in §217.132(b)(2)(iii)(A)(2), the Board-regulated institution must adjust \( H_{FX} \) calculated in paragraph (f)(2) of this section upward.