

Basel Committee on Banking Supervision

CRE

Calculation of RWA for credit
risk

CRE60

Equity investments in funds

**Version effective as of
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Consequential changes resulting from changes to scope of internal ratings-based approach for credit risk that come into effect due to the December 2017 Basel III publication.



BANK FOR INTERNATIONAL SETTLEMENTS

Introduction

60.1 Equity investments in funds that are held in the banking book must be treated in a manner consistent with one or more of the following three approaches, which vary in their risk sensitivity and conservatism: the “look-through approach” (LTA), the “mandate-based approach” (MBA), and the “fall-back approach” (FBA). The requirements set out in this chapter ([CRE60](#)) apply to banks’ equity investments in all types of funds, including off-balance sheet exposures (eg unfunded commitments to subscribe to a fund’s future capital calls). Exposures, including underlying exposures held by funds, that are required to be deducted under [CAP30](#) are excluded from the risk weighting treatment outlined in this chapter ([CRE60](#)). Illustrative examples of the requirements set out in this chapter are set out in [CRE99](#).

The look-through approach

60.2 The LTA requires a bank to risk weight the underlying exposures of a fund as if the exposures were held directly by the bank. This is the most granular and risk-sensitive approach. It must be used when:

- (1) there is sufficient and frequent information provided to the bank regarding the underlying exposures of the fund; and
- (2) such information is verified by an independent third party.

60.3 To satisfy condition (1) above, the frequency of financial reporting of the fund must be the same as, or more frequent than, that of the bank’s and the granularity of the financial information must be sufficient to calculate the corresponding risk weights. To satisfy condition (2) above, there must be verification of the underlying exposures by an independent third party, such as the depository or the custodian bank or, where applicable, the management company.¹

Footnotes

¹ An external audit is not required.

60.4 Under the LTA banks must risk weight all underlying exposures of the fund as if those exposures were directly held. This includes, for example, any underlying exposure arising from the fund's derivatives activities for situations in which the underlying receives a risk weighting treatment under the calculation of minimum risk based capital requirements ([RBC 20](#)) and the associated counterparty credit risk (CCR) exposure. Instead of determining a credit valuation adjustment (CVA) charge associated with the fund's derivatives exposures in accordance with the CVA framework ([MAR50](#)), banks must multiply the CCR exposure by a factor of 1.5 before applying the risk weight associated with the counterparty.² See [CRE99](#) for an example of how to calculate risk-weighted assets using the LTA.

Footnotes

² *A bank is only required to apply the 1.5 factor for transactions that are within the scope of the CVA framework (see [MAR50](#) for the scope of the CVA framework).*

60.5 Banks may rely on third-party calculations for determining the risk weights associated with their equity investments in funds (ie the underlying risk weights of the exposures of the fund) if they do not have adequate data or information to perform the calculations themselves. In such cases, the applicable risk weight shall be 1.2 times higher than the one that would be applicable if the exposure were held directly by the bank.³

Footnotes

³ *For instance, any exposure that is subject to a 20% risk weight under the standardised approach would be weighted at 24% (1.2 * 20%) when the look through is performed by a third party.*

The mandate-based approach

60.6 The second approach, the MBA, provides a method for calculating regulatory capital that can be used when the conditions for applying the LTA are not met.

60.7 Under the MBA banks may use the information contained in a fund's mandate or in the national regulations governing such investment funds.⁴ To ensure that all underlying risks are taken into account (including CCR) and that the MBA renders capital requirements no less than the LTA, the risk-weighted assets for the fund's exposures are calculated as the sum of the following three items (see [CRE99](#) for an example of how to calculate risk-weighted assets using the MBA):

- (1) Balance sheet exposures (ie the funds' assets) are risk weighted assuming the underlying portfolios are invested to the maximum extent allowed under the fund's mandate in those assets attracting the highest capital requirements, and then progressively in those other assets implying lower capital requirements. If more than one risk weight can be applied to a given exposure, the maximum risk weight applicable must be used.⁵
- (2) Whenever the underlying risk of a derivative exposure or an off-balance-sheet item receives a risk weighting treatment under the risk-based capital requirements standard ([RBC](#)), the notional amount of the derivative position or of the off-balance sheet exposure is risk weighted accordingly.^{6 7}
- (3) The CCR associated with the fund's derivative exposures is calculated using the standardised approach to counterparty credit risk (SA-CCR, see [CRE52](#)). SA-CCR calculates the counterparty credit risk exposure of a netting set of derivatives by multiplying (i) the sum of the replacement cost and potential future exposure; by (ii) an alpha factor set at 1.4. Whenever the replacement cost is unknown, the exposure measure for CCR will be calculated in a conservative manner by using the sum of the notional amounts of the derivatives in the netting set as a proxy for the replacement cost, and the multiplier used in the calculation of the potential future exposure will be equal to 1. Whenever the potential future exposure is unknown, it will be calculated as 15% of the sum of the notional values of the derivatives in the netting set.⁸ The risk weight associated with the counterparty is applied to the counterparty credit risk exposure. Instead of determining a CVA charge associated with the fund's derivative exposures in accordance with the CVA framework ([MAR50](#)), banks must multiply the CCR exposure by a factor of 1.5 before applying the risk weight associated with the counterparty.⁹

Footnotes

- 4 Information used for this purpose is not strictly limited to a fund's mandate or national regulations governing like funds. It may also be drawn from other disclosures of the fund.
- 5 For instance, for investments in corporate bonds with no ratings restrictions, a risk weight of 150% must be applied.
- 6 If the underlying is unknown, the full notional amount of derivative positions must be used for the calculation.
- 7 If the notional amount of derivatives mentioned in [CRE60.7](#) is unknown, it will be estimated conservatively using the maximum notional amount of derivatives allowed under the mandate.
- 8 For instance, if both the replacement cost and add-on components are unknown, the CCR exposure will be calculated as: $1.4 * (\text{sum of notionals in netting set} + 0.15 * \text{sum of notionals in netting set})$.
- 9 A bank is only required to apply the 1.5 factor for transactions that are within the scope of the CVA framework.

The fall-back approach

- 60.8** Where neither the LTA nor the MBA is feasible, banks are required to apply the FBA. The FBA applies a 1250% risk weight to the bank's equity investment in the fund.

Treatment of funds that invest in other funds

- 60.9** When a bank has an investment in a fund (eg Fund A) that itself has an investment in another fund (eg Fund B), which the bank identified by using either the LTA or the MBA, the risk weight applied to the investment of the first fund (ie Fund A's investment in Fund B) can be determined by using one of the three approaches set out above. For all subsequent layers (eg Fund B's investments in Fund C and so forth), the risk weights applied to an investment in another fund (Fund C) can be determined by using the LTA under the condition that the LTA was also used for determining the risk weight for the investment in the fund at the previous layer (Fund B). Otherwise, the FBA must be applied.

Partial use of an approach

60.10 A bank may use a combination of the three approaches when determining the capital requirements for an equity investment in an individual fund, provided that the conditions set out in [CRE60.1](#) to [CRE60.12](#) are met.

Exclusions to the look-through, mandate-based and the fall-back approaches

60.11 Equity holdings in entities whose debt obligations qualify for a zero risk weight can be excluded from the LTA, MBA and FBA approaches (including those publicly sponsored entities where a zero risk weight can be applied), at the discretion of the national supervisor. If a national supervisor makes such an exclusion, this will be available to all banks.

60.12 To promote specified sectors of the economy, supervisors may exclude from the capital requirements equity holdings made under legislated programmes that provide significant subsidies or the investment to the bank and involve some form of government oversight and restrictions on the equity investments. Example of restrictions are limitations on the size and types of businesses in which the bank is investing, allowable amounts of ownership interests, geographical location and other pertinent factors that limit the potential risk of the investment to the bank. Equity holdings made under legislated programmes can only be excluded up to an aggregate of 10% of a bank's total regulatory capital.

Leverage adjustment

60.13 Leverage is defined as the ratio of total assets to total equity. National discretion may be applied to choose a more conservative leverage metric, if deemed appropriate. Leverage is taken into account in the MBA by using the maximum financial leverage permitted in the fund's mandate or in the national regulation governing the fund.

60.14 When determining the capital requirement related to its equity investment in a fund, a bank must apply a leverage adjustment to the average risk weight of the fund, as set out in [CRE60.15](#), subject to a cap of 1250%.

60.15 After calculating the total risk-weighted assets of the fund according to the LTA or the MBA, banks will calculate the average risk weight of the fund (Avg RWfund) by dividing the total risk-weighted assets by the total assets of the fund.

Using Avg RWfund and taking into account the leverage of a fund (Lvg), the risk-weighted assets for a bank's equity investment in a fund can be represented as follows:

$$RWA_{investment} = Avg\ RW_{fund} * Lvg * equity\ investment$$

60.16 The effect of the leverage adjustments depends on the underlying riskiness of the portfolio (ie the average risk weight) as obtained by applying the standardised approach or the IRB approaches for credit risk. The formula can therefore be re-written as:

$$RWA_{investment} = RWA_{fund} * percentage\ of\ shares$$

60.17 See [CRE99](#) for an example of how to calculate the leverage adjustment.

Application of the LTA and MBA to banks using the IRB approach

60.18 Equity investments in funds that are held in the banking book must be treated in a consistent manner based on [CRE60.1](#) to [CRE60.17](#), as adjusted by [CRE60.19](#) to [CRE60.20](#) below.

60.19 Under the LTA:

- (1) Banks using an IRB approach must calculate the IRB risk components (ie PD of the underlying exposures and, where applicable, LGD and EAD) associated with the fund's underlying exposures (except where the underlying exposures are equity exposures, in respect of which the standardised approach must be used as required by [CRE30.34](#)).
- (2) Banks using an IRB approach may use the standardised approach for credit risk ([CRE20](#) to [CRE22](#)) when applying risk weights to the underlying components of funds if they are permitted to do so under the provisions relating to the adoption of the IRB approach set out in [CRE30](#) in the case of directly held investments. In addition, when an IRB calculation is not feasible (eg the bank cannot assign the necessary risk components to the underlying exposures in a manner consistent with its own underwriting criteria), the methods set out in [CRE60.20](#) below must be used.

- (3) Banks may rely on third-party calculations for determining the risk weights associated with their equity investments in funds (ie the underlying risk weights of the exposures of the fund) if they do not have adequate data or information to perform the calculations themselves. In this case, the third party must use the methods set out in [CRE60.20](#) below, with the applicable risk weight set 1.2 times higher than the one that would be applicable if the exposure were held directly by the bank.

60.20 In cases when the IRB calculation is not feasible ([CRE60.19\(2\)](#) above), a third-party is performing the calculation of risk weights ([CRE60.19\(3\)](#) above) or when the bank is using the MBA the following methods must be used to determine the risk weights associated with the fund's underlying exposures:

- (1) for securitisation exposures, the Securitisation External Ratings-Based Approach (SEC-ERBA) set out in [CRE42](#) if this method is implemented by the national regulator; the Securitisation Standardised Approach (SEC-SA) set out in [CRE41](#) if the SEC-ERBA has not been implemented by the national regulator or the bank is not able to use the SEC-ERBA; or a 1250% risk weight where the specified requirements for using the SEC-ERBA or SEC-SA are not met; and
- (2) the standardised approach ([CRE20](#) to [CRE22](#)) for all other exposures.