



MODULE	CA:	Capital Adequacy
CHAPTER	CA-3:	The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.1 Background

CA-3.1.1 Due to the nature of Islamic banking transactions, Islamic banks, as opposed to their conventional counterparts, are additionally exposed to price risk in their banking book. The CBB recognises that such risks need to be identified and measured for regulatory capital purposes.

CA-3.1.2 Sections CA-3.2 to CA-3.11 describe the minimum capital requirements for the treatment of exposures, taking into account both credit and market risks including price risk within the banking book for each of the nine classes of Islamic financing assets.

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CA-3.2 Murabahah and Murabahah to the Purchase Orderer

Introduction

CA-3.2.1 This section sets out the minimum capital adequacy requirements to cover the transactions that are based on the Sharia rules and principles of Murabaha and Murabaha to the Purchase Orderer (MPO).

CA-3.2.2 In Murabaha and MPO, the capital requirement for credit risk refers to the risk of a counterparty not paying the purchase price of an asset to the Islamic bank licensee. In the case of market (price) risk, the capital requirement is applicable with respect to: (a) assets in the Islamic bank licensee's possession which are available for sale either on the basis of Murabaha or MPO; and (b) assets which are in its possession due to the customer's non-performance of a promise to purchase (PP) in either non-binding or binding MPO.

CA-3.2.2A The CBB has discretion to apply to Islamic bank licensee the relevant provisions of this section for other forms of sale contract, namely Musawamah with spot or deferred payment (Bay` Bithaman Ajil).

Murabahah and Non-binding MPO

CA-3.2.3 This section is broadly divided into (a) Murabahah and non-binding MPO and (b) binding MPO, as the types of risk faced by the Islamic bank licensee are different at the various stages of the contract for the two categories.

CA-3.2.4 This classification and the distinctions between a non-binding MPO and a binding MPO are subject to the criteria and opinions set by the respective SSB of the Islamic bank licensee.

CA-3.2.5 A Murabahah contract refers to an agreement whereby the Islamic bank licensee sells to a customer at acquisition cost (purchase price plus other direct costs) plus an agreed profit margin, a specified kind of asset that is already in its possession. An MPO contract refers to an agreement whereby the Islamic bank licensee sells to a customer at cost (as above) plus an agreed profit margin, a specified kind of asset that has been purchased and acquired by the Islamic bank licensee based on a Promise to Purchase (PP) by the customer which can be a binding or non-binding PP.

CA-3.2.6 In a Murabahah transaction, the Islamic bank licensee sells an asset that is already available in its possession, whereas in a MPO transaction the Islamic bank licensee acquires an asset in anticipation that the asset will be purchased by the orderer/customer. Therefore, the Islamic bank licensee is exposed to price risk stemming from its possession of the asset prior to the execution of the contract.

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CA-3.2 Murabahah and Murabahah to the Purchase Orderer (continued)

CA-3.2.7 The price risk in Murabahah contracts ceases and is replaced by credit risk for the amount receivable from the customer following delivery of the asset. Likewise, in a non-binding MPO transaction, the Islamic bank licensee is exposed to credit risk on the amount receivable from the customer when the latter accepts delivery and assumes ownership of the asset.

Binding MPO

CA-3.2.8 In a binding MPO, the Islamic bank licensee has no "long" or "short" positions in the asset that is the subject of the transaction, as there is a binding obligation on the customer to take delivery of the asset at a pre-determined price. The Islamic bank licensee is exposed to credit risk in the event that the orderer in a binding MPO does not honour his/her obligations under the PP, resulting in the Islamic bank licensee having to dispose of the asset to a third party at a selling price which may be lower than the cost to the Islamic bank licensee. Depending on the Shari'a rulings that are applicable, the risk of selling at a loss may be mitigated by requiring the customer to deposit a Hamish Jiddiyah (HJ) when providing the binding promise to purchase, as commonly practised in the case of a binding MPO. The Islamic bank licensee would have recourse to the customer for any shortfall in the HJ to compensate for the loss and would be obliged to refund to the customer any amount of the HJ in excess of the loss. The HJ may be treated, after the conclusion of Murabahah, as part of the payment of the agreed selling price under the Murabahah contract. Alternatively, the Islamic bank licensee may take a down-payment (Urbun) from the purchase orderer when signing the contract. This payment is retained by the Islamic bank licensee if the purchase orderer fails to execute the contract, whereas on the execution of the contract the Urbun is treated as a payment in advance.

Collateralisation

CA-3.2.9 The Islamic bank licensee can secure a pledge of the sold asset/underlying asset after its possession by the buyer or another tangible asset ("collateralised Murabahah"). The collateralisation is not automatically provided in a Murabahah contract but must be explicitly stated or must be documented in a separate security agreement at or before the time of signing of the Murabahah contract. The Islamic bank licensee may employ other techniques such as pledge of deposits or a third party financial guarantee. The Risk Weight (RW) of a financial guarantor can be substituted for the RW of the purchaser provided that the guarantor has a better credit rating than the purchaser and that the guarantee is irrevocable and legally enforceable (see Section CA-4.7).



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CA-3.2 Murabahah and Murabahah to the Purchase Orderer (continued)

CA-3.2.10 In financing transactions that are collateralised, the CRM would take into account of any 'haircut' applicable to the any eligible financial collateral listed in Paragraph CA-4.7.25). Murabahah and binding MPO collateralised by real estate is covered in Paragraphs CA-4.2.19-20.

Credit Risk

Murabahah and Non-binding MPO

CA-3.2.11

The credit exposure must be measured based on accounts receivable in Murabahah (the term used herein includes MPO), which is recorded at their cash equivalent value i.e. amount due from the customers at the end of the reporting quarter less any provision for doubtful debts.

CA-3.2.12

The accounts receivable (net of specific provisions) amount arising from the selling of a Murabahah asset must be assigned a RW based on the credit standing of the obligor (purchaser or guarantor) as rated by an ECAI that is approved by the CBB or where the use of SCRA is appropriate. In case the obligor is unrated, a RW of 100% shall apply. (See Section CA-4.2).

Binding MPO

CA-3.2.13

In a binding MPO, the Islamic bank licensee is exposed to default on the purchase orderer's obligation to pay fully for the asset at the agreed price. In the event of the orderer defaulting on its PP, the Islamic bank licensee will dispose of the asset to a third party. The Islamic bank licensee will have recourse to any HJ⁹ paid by the orderer, and (a) may have a right to recoup from the orderer any loss on disposing of the asset, after taking account of the HJ or (b) may have no such legal rights. In both cases, this risk is mitigated by the asset in possession as well as any HJ paid by the purchase orderer against any actual loss.

⁹ The bank's recourse to HJ should be within the limits of the actual loss, which is the difference between the actual cost and the sale price of the asset to a third party.



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CA-3.2 Murabahah and Murabahah to the Purchase Orderer (continued)

CA-3.2.14 In case (a) of Paragraph CA-3.2.13, the Islamic bank licensee has the right to recoup any loss (as indicated in the previous paragraph) from the orderer, that right constitutes a claim receivable which is exposed to credit risk, and the exposure shall be measured as the amount of the asset's total acquisition cost to the Islamic bank licensee, (less the value of any eligible financial collateral (see Paragraph CA-4.7.25) subject to any haircut, and less the amount of any HJ). The applicable RW must be based on the standing of the obligor as rated by an ECAI that is approved by the CBB **or where the use of SCRA is appropriate**, and in the case the obligor is unrated, a RW of 100% shall apply (See Section CA-4.2).

CA-3.2.15 In case (b) of Paragraph CA-3.2.13, the Islamic bank licensee has no legal right, and the cost of the asset to the Islamic bank licensee constitutes a market risk (as in the case on a non-binding MPO), but the market risk exposure is reduced by the amount of any HJ that the Islamic bank licensee has the right to retain.

CA-3.2.16 In applying the treatment as set out in the Paragraph CA-3.2.15, the Islamic bank licensee must ensure that the PP is properly documented and legally enforceable. In the absence of proper documentation and legal enforceability, the asset is to be treated as similar to a non-binding MPO which is exposed to price risk, where the measurement approach is as set out in Paragraphs CA-3.2.20 and CA-3.2.21.

CA-3.2.17 Upon selling the asset, the accounts receivable (net of specific provisions) amount must be assigned a RW based on the credit standing of the obligor as rated by an ECAI that is approved by the CBB **or where the use of SCRA is appropriate**. In case the obligor is unrated, a RW of 100% applies. (See Section CA-4.2).

Exclusions

CA-3.2.18 The capital requirement is to be calculated on the receivable amount, net of (i) specific provisions, (ii) any amount that is secured by eligible financial collateral (as defined in Paragraph CA-4.7.25) and/or (iii) any amount that is past due 90 days or more (see Section CA-4.2).

Assignment of Risk Weights

CA-3.2.19 The assets of collateralised Murabaha may be categorised as per the claim categories detailed in Section CA-4.2, and risk weighted accordingly. Islamic bank licensees should ensure that the appropriate risk weight is used based on the claim category for each transaction.



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Market Risk

Murabahah and Non-binding MPO

CA-3.2.20

In the case of an asset in possession in a Murabahah transaction and an asset acquired specifically for resale to a customer in a non-binding MPO transaction, the asset must be treated as inventory of the Islamic bank licensee and, using the simplified approach, the capital charge for such a market risk exposure is 15% of the amount of the position (carrying value). The 15% capital charge is also applicable to assets held by an Islamic bank licensee in respect of incomplete non-binding MPO transactions at the end of a financial period.

CA-3.2.21

Assets in possession on a 'sale with the option of stipulation' basis (with this option included in the contract) are treated as accounts receivable from the vendor and as such would be offset against the related accounts payable to the vendor. If these accounts payable have been settled, the assets must attract a RW based on rating of the vendor (100% in case of unrated), subject to (a) the availability of documentation evidencing such an arrangement with the vendor, and (b) the period for returning the assets to the vendor not having been exceeded. If the above conditions are not satisfied, capital charge will be provided as per Paragraph CA-3.2.20.

Binding MPO

CA-3.2.22

In a binding MPO the orderer has the obligation to purchase the asset at the agreed price, and the Islamic bank licensee as the seller is not exposed to market risk in respect of the asset, but only to credit risk as indicated in Paragraph CA-3.2.13.

Foreign Exchange Risk

CA-3.2.23

If the funding of an asset purchase or the selling of an asset opens an Islamic bank licensee to foreign exchange exposures, the relevant positions must be included in the measurement of foreign exchange risk described in Section CA-5.5.



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CA-3.2 Murabahah and Murabahah to the Purchase Orderer (continued)

Summary of Capital Requirement at Various Stages of the Contract

CA-3.2.24

The following table sets out the applicable stages of the contract that attracts capital charges:

(a) Murabahah and Non-binding MPO

Applicable Stage of the Contract	Credit RW	Market Risk Capital Charge
Asset available for sale (asset on balance sheet)*	Not applicable	Price risk (15% Capital Charge) (see Paragraph CA-3.2.20)
Asset is sold and title is transferred to a customer and the selling price (accounts receivable) is due from the customer.	Based on customer's rating or 100% RW for unrated customer (see Paragraphs CA-3.2.11 and CA-3.2.12)	NA
Upon full settlement of the purchase price.	NA	NA

* Also includes an asset which is in possession due to cancellation of PP by a non-binding MPO customer. Any HJ taken, if any, is not considered as eligible collateral and must not be offset against the value of the asset.

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CA-3.2 Murabahah and Murabahah to the Purchase Orderer (continued)

(b) Binding MPO

Applicable Stage of the Contract	Credit RW***	Market Risk Capital Charge
Asset available for sale (asset on balance sheet)* - If the bank has legal right to recoup from the customer any loss on disposing of the asset	Asset acquisition cost less [market value of asset if eligible as collateral (net of any haircut**) less any HJ] x applicable RW (see chapter CA-4)	NA
Asset is sold and delivered to a customer (accounts receivable is due from the customer).	Based on customer's rating or 100% RW for unrated customer (see section CA-4.2)	NA
Upon full settlement of the purchase price.	NA	NA

* Also includes an asset which is in possession due to cancellation of PP by a customer.

** Please refer to CRM Section CA-4.7 for eligibility of collateral and application of haircuts.

***This credit RW is applicable only when the bank will have recourse to any HJ or Urbun paid by the customer, and (depending on the legal situation) in the case of HJ may have a right to recoup from the customer any loss on disposing of the asset, after taking account of the HJ. (This right does not exist in the case of Urbun.)

If the bank has no such right, the cost of the asset to the bank constitutes a market risk (as in the case of a non-binding MPO), but this market risk exposure is reduced by the amount of any HJ that the bank has the right to retain.



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CA-3.3 Salam and Parallel Salam

Introduction

- CA-3.3.1 This section sets out the minimum capital requirement to cover credit and market (price) risks arising from entering into contracts or transactions that are based on the Shari'a rules and principles of Salam. The Islamic bank licensee is exposed to the (a) credit (counterparty) risk of not receiving the purchased commodity after disbursing the purchase price to the seller, and (b) price risk that the Islamic bank licensee incurs from the date of execution of a Salam contract, which is applicable throughout the period of the contract and beyond the maturity date of the contract as long as the commodity remains on the balance sheet of the Islamic bank licensee, in the absence of a hedge in the form of a parallel Salam contract covering the subject matter (A parallel contract may also be used to hedge part of the exposure).
- CA-3.3.2 This section is applicable to (a) Salam contracts that are executed without any Parallel Salam contracts and (b) Salam contracts that are backed by independently executed Parallel Salam contracts.
- CA-3.3.3 A Salam contract refers to an agreement to purchase, at a predetermined price, a specified kind of commodity¹⁰ which is to be delivered on a specified future date in a specified quantity and quality. The Islamic bank licensee as the buyer makes full payment of the purchase price upon execution of a Salam contract or within a subsequent period not exceeding two or three days as deemed permissible by its Sharia Supervisory Board (SSB).
- CA-3.3.4 In certain cases the Islamic bank licensee may enter into a back-to-back contract (Parallel Salam) to sell a commodity with the same specification as the purchased commodity under a Salam contract to a party other than the original seller. The Parallel Salam allows the Islamic bank licensee to sell the commodity for future delivery at a predetermined price (thus hedging the price risk on the original Salam contract) and protects the Islamic bank licensee from having to take delivery of the commodity and warehousing it. As noted above, such a parallel contract may also be used as a partial hedge.
- CA-3.3.5 The non-delivery of the commodity by a Salam seller (i.e. counterparty risk) does not discharge the Islamic bank licensee's obligations to deliver the commodity under a Parallel Salam contract, and thus exposes the Islamic bank licensee to potential loss in obtaining the supply elsewhere.

¹⁰ A commodity is defined as a physical product which is and can be traded on a secondary market, e.g. agricultural products, minerals (including oil) and precious metals. The commodity may or may not be traded on an organised exchange.



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CA-3.3 Salam and Parallel Salam (continued)

CA-3.3.6 The obligations of an Islamic bank licensee under Salam and Parallel Salam are not inter-conditional or interdependent, which implies that there is no legal basis for offsetting credit exposures between the contracts.

CA-3.3.7 In the absence of a Parallel Salam contract, an Islamic bank licensee may sell the subject-matter of the original Salam contract in the spot market upon receipt, or, alternatively, the Islamic bank licensee may hold the commodity in anticipation of selling it at a higher price. In the latter case, the Islamic bank licensee is exposed to price risk on its position in the commodity until the latter is sold.

Credit Risk

CA-3.3.8 The receivable amount generated from the purchase of a commodity based on a Salam contract must, in appropriate cases, be assigned a RW based on the credit standing of a supplier/counterparty as rated by an ECAI that is approved by the CBB or where the use of SCRA is appropriate. If the supplier/counterparty is unrated (which will normally be the case), a RW of 100% applies (See Section CA-4.2).

Exclusions

CA-3.3.9 The capital requirement is to be calculated on the receivable amount, net of specific provisions. Amounts that are secured by eligible collateral as defined are covered in Section CA-4.7 and amounts that are past due 90 days or more are covered in Paragraph CA-4.2.21.

Applicable Period

CA-3.3.10 The credit RW will be applied from the date of the contract made between both parties until the maturity of the Salam contract, which is upon receipt of the purchased commodity. However, between the date of contract and disbursement of funds to the customer the exposure is a commitment (off-balance sheet) and a credit conversion factor (CCF) of 20% will be applied before applying the relevant RW.



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CA-3.3 Salam and Parallel Salam (continued)

No Offsetting Arrangement between Credit Exposures of Salam and Parallel Salam

CA-3.3.11 The credit exposure amount of a Salam contract is not to be offset against the exposure amount of a Parallel Salam contract, as an obligation under one contract does not discharge an obligation to perform under the other contract.

Market Risk

CA-3.3.12 The price risk on the commodity exposure in Salam is measured using either: (a) the maturity ladder approach; or (b) the simplified approach (see section CA-5.6). Under the simplified approach, the capital charge will be equal to 15% of the net position in each commodity, plus an additional charge equivalent to 3% of the gross positions, long plus short, to cover basis risk and forward gap risk. The 3% capital charge is also intended to cater for potential losses in parallel Salam when the seller in the original Salam contract fails to deliver and the Islamic bank licensee has to purchase an appropriate commodity in the spot market to honour its obligation.

CA-3.3.13 The long and short positions in a commodity, which are positions of Salam and Parallel Salam, may be offset under either approach for the purpose of calculating the net open positions provided that the positions are in the same group of commodities.

Foreign Exchange Risk

CA-3.3.14 If the funding of a commodity purchase or selling of a commodity leaves an Islamic bank licensee open to foreign exchange exposures, the relevant positions must be included in the measures of foreign exchange risk described in Section CA-5.5.

Summary of Capital Requirement at Various Stages of the Contract

CA-3.3.15 The following table sets out the applicable stage of the contract that attracts capital charges:

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CA-3.3 Salam and Parallel Salam (continued)

(a) Salam with Parallel Salam

Applicable Stage of Contract	Credit RW	Market Risk Capital Charge
Payment of purchase price by the bank to a Salam customer	Based on customer's rating or 100% RW for unrated customer. No Netting of Salam exposures against parallel Salam exposures. (See Section CA-4.2)	Two approaches are applicable: Maturity Ladder Approach (see CA-5.6.) <u>Simplified approach</u> 15% capital charge on net position (i.e. netting of Salam exposures against parallel Salam exposures)
Receipt of the purchased commodity by the bank. Asset available for delivery to the customer.	NA	Plus: 3% capital charge on gross positions (i.e. Salam exposures plus parallel Salam exposures) See Paragraphs CA-3.3.12 to CA-3.3.14.
The purchased commodity is sold and delivered to the buyer.	NA	NA

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CA-3.3 Salam and Parallel Salam (continued)

(b) Salam without Parallel Salam

Applicable Stage of Contract	Credit RW	Market Risk Capital Charge
Payment of purchase price by the bank to a Salam customer (seller)	Based on customer's rating or 100% RW for unrated customer. (See Section CA-4.2)	Simplified approach 15% capital charge on long position of Salam exposures. See Section CA-3.3.12 to CA-3.3.14.
Receipt of the purchased commodity by the bank. Asset available for delivery to the customer.	NA	
The purchased commodity is sold and delivered to the buyer.	NA	NA



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CA-3.4 Istisna'a and Parallel Istisna'a

Introduction

CA-3.4.1 This Section sets out the minimum capital adequacy requirement to cover credit and market (price) risks arising from entering into contracts or transactions that are based on the Sharia rules and principles of Istisna'a.

Principles of Istisna'a

CA-3.4.2 Istisna'a and parallel Istisna'a contracts would attract a risk weighting as per the credit standing of the respective counterparties (See Section CA-4.2).

CA-3.4.3 An Istisna'a contract refers to an agreement to sell to or buy from a customer, a non-existent asset **at the time of signing the contract**, which is to be manufactured or built according to the ultimate buyer's specifications **agreed upon between the two contracting parties** and is to be delivered on a specified future date at a predetermined selling price.

CA-3.4.3A In an Istisna'a contract, price and other necessary specifications must also be fixed and fully settled between the buyer and manufacturer/builder. The payments by the buyer in Istisna'a may be made in advance **without stipulating the advance payment of the price at the time of signing the contract**, during the period of construction reflecting stages of completion, or deferred to a specified future date. The contract of Istisna'a is a binding contract that cannot be cancelled unilaterally by either party once the manufacturing work starts. If the subject matter does not conform to the specification agreed upon, the buyer has the option to accept or to refuse the subject matter.

CA-3.4.3B The subject matter on which transaction of Istisna'a is based is always an item which needs to be manufactured or constructed, such as a ship, an aircraft or a building, and it cannot be an existing and designated asset. Istisna'a may also be used for similar projects such as installation of an air-conditioner plant in the customer's factory, or building a bridge or a highway.

CA-3.4.3C The price of an asset under this contract is agreed or determined on the contractual date, and such a contract is binding. The price cannot be increased or decreased on account of an increase or decrease in commodity prices or labour cost. The price can be changed subject to the mutual consent of the contracting parties, which is a matter for the commercial decision of the Islamic bank licensee and can result in a lower profit margin and a capital charge as outlined in Paragraph CA-3.4.24.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Roles and Exposure of a Bank in an Istisna'a Contract

CA-3.4.4 In practice, an Islamic bank licensee can play different roles while engaging in the contract of Istisna'a, as follows:

- (a) Islamic bank licensee as a seller (al-sani') in Istisna'a contract:
 - (i) In many cases, an Islamic bank licensee acts as a "seller" in the Istisna'a contract and engages the services of a contractor (other than the client) by entering into another Istisna'a contract as buyer¹¹ or using some other Shari'a compliant contract such as Murabahah; or.
 - (ii) If a parallel Istisna'a contract is used for manufacturing the asset, the Islamic bank licensee acts as a buyer in the parallel contract. The Islamic bank licensee as an intermediary calculates its cost in the parallel contract and fixes the price of Istisna'a with its client that allows it to make a reasonable profit over his cost. The two contracts, however, need to be totally independent of each other. In order to secure the payment from the ultimate buyer (i.e. the customer), the title deeds of the underlying asset, or any other collateral, may be required by the Islamic bank licensee as a security until the complete payment is made by the ultimate buyer; and
- (b) Islamic bank licensee as a buyer (al-mustasni') in Istisna'a contract:
 - (i) In some cases, an Islamic bank licensee can act as a "buyer" in an Istisna'a contract where it can have an asset constructed by a contractor: (i) for its own account (which can be, for example, subsequently sold or leased on a Murabahah or Ijara basis, respectively); or (ii) on the basis of the ultimate customer's specifications; or
 - (ii) If the parallel Istisna'a contract is used in this scenario with the ultimate customer, the Islamic bank licensee acts as seller in the parallel contract.

CA-3.4.5 This Section makes distinctions between two types of exposures in Istisna'a financing, as follows:

- (a) Exposure to customer:

The receipt of the selling price by the Islamic bank licensee is dependent on the financial strength or payment capability of the ultimate customer or the contractor (cases (a) and (b) of Paragraph CA-3.4.4 respectively), where the source of payment is derived from the various other activities of the ultimate customer or contractor and is not solely dependent on the cash flows from the underlying asset/project; and

¹¹ Where two such parallel Istisna'a contracts exist, it is customary to refer to one of the contracts as a "parallel Istisna'a". Typically, it is the contract which is entered into second which is referred to as the "parallel Istisna'a".



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

(b) Exposure to asset (i.e. exposure to the cash flows from the completed asset):
The receipt of the selling price by the Islamic bank licensee is dependent partially or primarily on the amount of revenue generated by the asset being manufactured or constructed by selling its output or services to contractual or potential third-party buyers. This form of Istisna'a faces "revenue risk" arising from the asset's ability to generate cash flows, instead of the creditworthiness of the ultimate customer or project sponsor (cases (a) and (b) of Paragraph CA-3.4.4 respectively). Such exposure normally arises when an Istisna'a contract is used in project finance and BOT (build, operate, transfer) transactions.

CA-3.4.6 In the Istisna'a contract, the Islamic bank licensee assumes the completion risk¹² that is associated with the failure to complete the project at all, delay in completion, cost overruns, occurrence of a force majeure event, and unavailability of qualified personnel and reliable seller(s) or sub-contractors, including any late completion penalty¹³ payable to the ultimate customer due to non-fulfilment of required specifications.

Capital Adequacy Requirements

CA-3.4.7 The exposures under Istisna'a involve credit and market risks, as described below. Credit exposures arise once the work is billed to the customer, while market (price) exposures arise on unbilled work-in-process (WIP).

CA-3.4.8 There is a capital requirement to cater for the credit (counterparty) risk of the Islamic bank licensee not receiving the selling price of the asset from the ultimate customer or contractor, either in pre-agreed stages of completion and/or upon full completion of the manufacturing or construction process.

CA-3.4.9 This Section also sets out the capital adequacy requirement to cater for the market risk that an Islamic bank licensee incurs from the date of manufacturing or construction, which is applicable throughout the period of the contract on unbilled WIP inventory.

CA-3.4.10 This Section is applicable to both (a) Istisna'a contracts that are executed without any parallel Istisna'a contracts, and (b) Istisna'a contracts that are backed by independently executed parallel Istisna'a contracts.

¹² In conventional project financing, the completion risk is normally borne by the project sponsor/contractor, and not by the bank, because the project sponsor/contractor has most often been asked to provide an undertaking to cover cost overruns.

¹³ Normally, the contract between the bank and the contractor will specify in a penalty clause the latter's liability for penalties in case of delays for which it is responsible.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Bank as a Seller (al sani') in an Istisna'a Contract

Istisna'a with Parallel Istisna'a

CA-3.4.11 In cases where an Islamic bank licensee enters into a parallel Istisna'a contract to procure an asset from a party other than the original Istisna'a customer (buyer), the price risk relating to input materials is mitigated. The Islamic bank licensee remains exposed to the counterparty risk of the parallel Istisna'a seller in delivering the asset on time and in accordance with the Istisna'a ultimate buyer's specifications. This is the risk of not being able to recover damages from the parallel Istisna'a seller for the losses resulting from the breach of contract.

CA-3.4.12 The failure of the parallel Istisna'a seller to deliver a completed asset which meets the ultimate buyer's specifications does not discharge the Islamic bank licensee's obligations to deliver the asset ordered under an Istisna'a contract, and thus exposes the Islamic bank licensee to potential loss in making good the shortcomings or obtaining the supply elsewhere.

Credit Risk

Exposure to Customer

CA-3.4.13 The receivable amount generated from selling of an asset based on an Istisna'a contract with full exposure to the customer (ultimate buyer) must be assigned a RW based on the credit standing of the customer as rated by an ECAI that is approved by the CBB **or where the use of SCRA is appropriate**. Refer to Section CA-4.2 for the RW. In cases where the ultimate buyer is unrated, a RW of 100% applies.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Exposure to Asset

CA-3.4.14

When the project is rated by an ECAI, the RW based on the credit rating of the **exposure** is applied to calculate the capital adequacy requirement. If the Istisna'a exposure meets the definition and prudential requirements of specialised financing exposure (project finance), the Islamic bank licensee must apply the RWs contained in the table in CA-4.2.14 and CA-4.2.15D. Istisna'a financing with an "exposure to asset" structure is required to meet the characteristics as set out in CA-3.4.15 in order to qualify for the RWs.

CA-3.4.15

Istisna'a financing with an "Exposure to Asset" structure is required to meet the characteristics as set out below in order to qualify for the above RW:

- The segregation of the project's liabilities from the balance sheet of the Istisna'a ultimate buyer or project sponsor from a commercial and accounting perspective which is generally achieved by having the Istisna'a contract made with a special-purpose entity set up to acquire and operate the asset/project concerned;
- The ultimate buyer is dependent on the income received from the assets acquired/projects to pay the purchase price;
- The contractual obligations give the manufacturer/ constructor/ bank a substantial degree of control over the asset and the income it generates – for example, under the BOT arrangement where the manufacturer builds a highway and collects tolls for a specified period as a consideration for the selling price; and
- The primary source of repayment is the income generated by the asset/project rather than relying on the capacity of the ultimate buyer.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Exclusions

- CA-3.4.16** The capital requirement is to be calculated on the receivable amount, net of:
- (a) Specific provisions;
 - (b) Any amount that is secured by eligible collateral (as defined in Section CA-4.7); and
 - (c) Any amount which is past due 90 days or more (see CA-4.2).

- CA-3.4.17** Any portion of an Istisna'a contract that is covered by an advanced payment must carry a RW of 0%, or the amount of the advanced payment must be offset against the total amount receivable or amounts owing from progress billings.

Applicable Period

- CA-3.4.18** The credit RW is to be applied from the date when the manufacturing or construction process commences and until the selling price is fully settled by the Islamic bank licensee, either in stages and/or on the maturity of the Istisna'a contract, which is upon delivery of the manufactured asset to the Istisna'a ultimate buyer.

Offsetting Arrangement between Credit Exposures of Istisna'a and Parallel Istisna'a

- CA-3.4.19** The credit exposure amount of an Istisna'a contract is not to be offset against the credit exposure amount of a Parallel Istisna'a contract because an obligation under one contract does not discharge an obligation to perform under the other contract.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Market Risk

Exposure to Customer

(a) Istisna'a with Parallel Istisna'a

CA-3.4.20

There is no capital charge for market risk to be applied in addition to provisions in Paragraphs CA-3.4.13 to CA-3.4.19, subject to there being no provisions in the Parallel Istisna'a contract that allow the seller to increase or vary its selling price to the Islamic bank licensee, under unusual circumstances. Any variations in a Parallel Istisna'a contract that are reflected in the corresponding Istisna'a contract which effectively transfers the whole of the price risk to an Istisna'a customer (buyer), are also eligible for this treatment.

CA-3.4.21

If the seller is allowed to vary the selling price of the asset, then the price risk must be calculated in accordance with Paragraph CA-5.2.2.

(b) Istisna'a without Parallel Istisna'a

CA-3.4.22

A capital charge of 1.6% is to be applied to the balance of unbilled WIP inventory to cater for market risk, in addition to the credit RW stated in Paragraphs CA-3.4.13 to CA-3.4.19.

CA-3.4.23

The unbilled WIP inventory is held subject to the binding order of the Istisna' ultimate buyer and is thus not subject to inventory price as described in Section CA-5.6.

Foreign Exchange Risk

CA-3.4.24

Any foreign exchange exposures arising from the purchasing of input materials, or from Parallel Istisna'a contracts made, or the selling of a completed asset in foreign currency must be included in the measures of foreign exchange risk described in section CA-5.5.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Bank as a Buyer (al mustasni') in an Istisna'a Contract

Istisna'a with Parallel Istisna'a

CA-3.4.25 In cases where an Islamic bank licensee enters into Parallel Istisna'a to sell an asset to an ultimate customer, its price risk relating to input materials is mitigated. The Islamic bank licensee remains exposed to the counterparty risk of the Istisna'a supplier in delivering the asset on time and in accordance with the parallel Istisna'a ultimate buyer's specifications. This is the risk of not being able to recover damages from the Istisna'a supplier for the losses resulting from the breach of contract.

CA-3.4.26 The failure of the Istisna'a supplier to deliver a completed asset which meets the ultimate buyer's specifications does not discharge the Islamic bank licensee's obligations to deliver the asset ordered under a parallel Istisna'a contract, and thus exposes the Islamic bank licensee to potential loss in making good the shortcomings or obtaining the supply elsewhere.

CA-3.4.26A The obligations of an Islamic Bank licensee under Istisna'a and parallel Istisna'a contracts are not interconditional or interdependent, which implies that there is no basis for offsetting credit exposures between the contracts.

CA-3.4.26B Where the Islamic Bank licensee is acting as al-mustasni, and there is parallel istisna with an ultimate customer, the treatment of its credit and market risks exposure is the same as outlined in paragraphs CA-3.4.13 to CA-3.4.20. However, where the Islamic Bank licensee is acting as al-mustasni but without a parallel istisna with an ultimate customer, it means that the Islamic Bank licensee is buying the assets for its own account (which can be, for example, subsequently sold or leased on a murabahah or ijarah basis). In this case, the Islamic Bank licensee is making progress payments to the manufacturer in the istisna contract, thereby acquiring title to WIP inventory. This WIP inventory is exposed to price risk. As there is no parallel istisna sale to an ultimate customer, there is no credit risk.

Credit Risk

Exposure to Customer

CA-3.4.27 The receivable amount generated from selling of an asset based on a parallel Istisna'a contract with full exposure to the ultimate customer must be assigned a RW based on the credit standing of the customer as rated by an ECAI that is approved by the CBB. Refer to Section CA-4.6 for the RW. In cases where the ultimate buyer is unrated, a RW of 100% applies.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Exposure to Asset

CA-3.4.28 When the project is rated by an ECAI, the RW based on the credit rating of the "off-taker" (third-party buyer) is applied to calculate the capital adequacy requirement. For the RW for specialised financing (project finance) refer to CA-4.2.14 and CA-4.2.15D.

CA-3.4.29 The "Exposure to Asset" Istisna'a structure is required to meet the characteristics as set out in Paragraph CA-3.4.22.

Exclusions

CA-3.4.30 The capital requirement is to be calculated on the receivable amount, net of: a) specific provisions; b) any amount that is secured by eligible collateral as defined in Section CA-4.7; and c) any amount which is past due by more than 90 days as set out in Section CA-4.2. These other amounts are to be risk weighted as described in the concerned Sections.

CA-3.4.31 Any portion of a parallel Istisna'a contract covered by an advance payment carries a RW of 0%, or the amount of the advanced payment is offset against the total amount receivable from the ultimate customer or amounts owing from progress billings.

Applicable Period

CA-3.4.32 The credit RW is to be applied from the date when the manufacturing or construction process commences and until the selling price is fully settled by the Islamic bank licensee, either in stages and/or on the maturity of the Istisna'a contract, which is upon delivery of the manufactured asset to the parallel Istisna'a ultimate buyer.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Offsetting Arrangement between Credit Exposures of Istisna'a and Parallel Istisna'a

CA-3.4.33

The credit exposure amount of a parallel Istisna'a contract is not to be offset against the credit exposure amount of an Istisna'a contract (or vice versa) because an obligation under one contract does not discharge an obligation to perform under the other contract.

Market Risk

Exposure to Customer

Istisna'a with Parallel Istisna'a

CA-3.4.34

There is no capital charge for market risk to be applied in addition to provisions on credit risk, subject to there being no provisions in the Istisna'a contract that allow the supplier to increase or vary its selling price to the Islamic bank licensee, under unusual circumstances. Any variations in a parallel Istisna'a contract that are reflected in the corresponding Istisna'a contract which effectively transfers the whole of the price risk to a parallel Istisna'a customer (ultimate buyer) are also eligible for this treatment.

Istisna'a without Parallel Istisna'a

CA-3.4.35

In Istisna'a without Parallel Istisna'a, the Islamic bank licensee is making progress payments to the Istisna'a supplier, thereby acquiring title to WIP inventory. The WIP inventory is exposed to price risk. As there is no parallel Istisna'a sale to an ultimate customer, there is no credit risk.

CA-3.4.36

The WIP receives a capital charge appropriate to inventory – 15% (equivalent to a risk weight of 234 % since the minimum capital requirement is 10% before capital conservation buffer).

Foreign Exchange Risk

CA-3.4.37

Any foreign exchange exposures arising from the purchasing of input materials, or from parallel Istisna'a contracts made, or the selling of a completed asset in foreign currency must be included in the measures of foreign exchange risk described in Section CA-5.5.



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CA-3.4 Istisna'a and Parallel Istisna'a (continued)

Summary of Capital Requirement at Various Stages of the Contract

CA-3.4.38

The following tables set out the applicable period of the contract that attracts capital charges where the Islamic bank licensee is the seller.

(a) Exposure to customer

(i) Istisna'a with Parallel Istisna'a

Applicable Stage of the Contract	Credit RW	Market Risk Capital Charge
Unbilled WIP inventory	Based on ultimate buyer's rating or 100% RW for unrated buyer.	Nil provided that there is no provision in the Parallel Istisna'a contract that allows the seller to increase or vary the selling price. See Paragraphs CA-3.4.20 and CA-3.2.21.
Amount receivable after contract billings	No netting of Istisna'a exposures against Parallel Istisna'a exposures. (See Paragraphs CA-3.4.13 to CA-3.4.19) (See Section CA-4.2)	If the seller is allowed to vary the selling price of the asset, then under the <u>market risk</u> treatment 15% capital charge on net long or short position plus 3% capital charge on gross positions (see CA-5.2.2).
Upon full settlement of the purchased price by an Istisna'a buyer.	NA	NA



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CA-3.4 Istisna'a and parallel Istisna'a (continued)

(ii) Istisna'a without Parallel Istisna'a

Applicable Stage of the Contract	Credit RW	Market Risk Capital Charge
Unbilled WIP inventory	Based on ultimate buyer's rating or 100% RW for unrated buyer.	1.6% capital charge (equivalent to 20% RW) on work in progress inventory. See relevant Paragraphs under CA-3.4.22 to CA-3.4.23
Progress billing to customer.	Based on ultimate buyer's rating or 100% RW for unrated buyer. (See Paragraphs CA-3.4.14 to CA-3.4.22) (See Section CA-4.2)	NA
Upon full settlement of the purchased price by an Istisna'a buyer.	NA	NA



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CA-3.4 Istisna'a and parallel Istisna'a (continued)

(b) Exposure to asset

Istisna'a with Parallel Istisna'a (for project finance)

Applicable Stage of the Contract	Credit RW	Market Risk Capital Charge
Unbilled WIP inventory	Based on the rating of the project or as prescribed in CA-4.2.14 & CA-4.2.15D.	NA
Amount receivable after contract billings	No netting of Istisna'a exposures against Parallel Istisna'a exposures. (See Sections CA-4.2 and CA -4.3)	NA
Upon full settlement of the purchased price by an Istisna'a buyer.	NA	NA



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CA-3.4 Istisna'a and parallel Istisna'a (continued)

CA-3.4.39

Where the Islamic bank licensee is acting as the buyer, the treatment for capital charges is set out in the table under Paragraph CA-3.4.38 (a) (i).

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CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.4 Istisna'a and parallel Istisna'a (continued)

(i) Istisna'a without Parallel Istisna'a

Applicable Stage of the Contract	Credit RW	Market Risk Capital Charge
Amounts of progress payments to suppliers for WIP inventory.	None (no ultimate Istisna'a customer) See <u>credit risk</u> under Section CA-3.4	15% for WIP inventory See <u>Market risk</u> under Section CA-3.4.20 onward

(b) Exposure to asset

Istisna'a with Parallel Istisna'a (for project finance)

Where the Islamic bank licensee is acting as the buyer, the treatment for capital charges is set out in the table under Paragraph CA-3.4.38 (b).

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CA-3.5 Ijarah and Ijarah Muntahia Bittamleek

Introduction

- CA-3.5.1 This Section sets out the minimum capital requirement to cover counterparty risk and residual value risk of leased assets, arising from an Islamic bank licensee entering into contracts or transactions that are based on the Sharia rules and principles of Ijarah and Ijarah Muntahia Bittamleek (IMB), also known as Ijarah wa Iqtinā. The Section also covers the market (price) risk of assets acquired for Ijarah and IMB.
- CA-3.5.2 In an Ijarah contract (either operating or IMB), the Islamic bank licensee as the lessor maintains its ownership in the leased asset whilst transferring the right to use the asset, or usufruct, to an enterprise as the lessee, for an agreed period at an agreed consideration. All liabilities and risks pertaining to the leased asset are to be borne by the Islamic bank licensee including obligations to restore any impairment and damage to the leased asset arising from wear and tear and natural causes which are not due to the lessee's misconduct or negligence.
- CA-3.5.3 Thus, in both Ijarah and IMB, the risks and rewards remain with the lessor, except for the residual value risk at the term of an IMB which is borne by the lessee. The lessor is exposed to price risk on the asset while it is in the lessor's possession prior to the signature of the lease contract, except where the asset is acquired following a binding promise to lease as described in Paragraph CA-3.5.12.
- CA-3.5.4 In an IMB contract, the lessor promises to transfer its ownership of the leased asset to the lessee at the end of the contract as a gift or as a sale at a specified consideration, provided that the promise is separately expressed and independent of the underlying Ijarah.
- CA-3.5.5 In both operating Ijarah and IMB, the Islamic bank licensee either possesses the asset before entering into a leased contract or enters into an agreement with the lessee on an identified asset to be leased whereby the lessor would lease the asset after owning it in the future to the lessee. This agreement to lease may be considered as "a Promise to Lease (PL)", depending on the applicable Shari'ah interpretations, or both types of lease (operating and IMB) could be based on a forward lease, whereby a lease contract is entered into before the lessor owns the specified asset, followed by the lessor owning an asset that matches those specifications that can subsequently be delivered to the lessee.



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CA-3.5 Ijarah and Ijarah Muntahia Bittamleek (continued)

CA-3.5.6 This Section sets out the minimum capital requirements to cater for the lessor's exposures to (a) the credit risk of the lessee as counterparty in servicing the lease rentals, and (b) the market (price) risk attaching to the residual value of the leased assets either at the end of the Ijarah contract or at the time of repossession upon default, i.e. the risk of losing money on the resale of the leased asset.

IMB

CA-3.5.7 In IMB, once the lease contract is signed, the lessor is exposed to credit risk for the lease payments receivable from the lessee (a credit risk mitigated by the asset's value under the ownership of the lessor) and to a type of operational risk in respect of the need to compensate the lessee if the asset is permanently impaired through no fault of the latter. If the leased asset is permanently impaired and is uninsured, the Islamic bank licensee suffers a loss equal to the carrying value of the leased asset, just as it would if any of its fixed assets were permanently impaired. In the event that the lessee exercises its right to cancel the lease based on the contract signed between the two parties, the lessor is exposed to the residual value of the leased asset being less than the refund of payments due to the lessee. In such case, the price risk, if any, is already reflected in a 'haircut' to be applied to the value of the leased asset under the ownership of the lessor. Therefore, the price risk, if any, is not applicable in the context of the IMB.

CA-3.5.7A The lessor is also exposed to price risk in the event that the lessee cancels the lease contract. However, the lessor's exposure may be moderated by the residual value of the repossessed asset. Therefore, the lessor's net exposure will be the difference between the residual value and the market value of the leased asset.

CA-3.5.8 [This Paragraph was deleted in XX 2026]



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CA-3.5 Ijarah and Ijarah Muntahia Bittamleek (continued)

CA-3.5.9 The Islamic bank licensee may be exposed to losses in case where a lessee acquiring an asset under IMB decides not to continue with the contract. Where the lease contract gives the lessee this right subject to certain conditions such as a minimum period of notice and the reduction of the paid rentals by the additional component of the rent, if these conditions are satisfied, then the lessor is required to refund to the lessee the additional rentals (on the basis of the promise to own) that were included in the periodic lease rentals (subject to deduction of any amounts due for unpaid rentals). If the value of the repossessed asset is less than the amount to be refunded (before any such deduction), the difference constitutes a loss to the lessor. This exposes the Islamic bank licensee as lessor to a form of market risk⁶.

CA-3.5.10 In theory, a situation could arise in which, when an IMB contract arrives at its term, the lessee decides not to exercise its option to complete the purchase by making the contractually agreed final payment (The option to purchase places no obligation on the lessee to do so). The Islamic bank licensee may thus be exposed to market risk, in respect of a potential loss from disposing of the asset for an amount lower than its residual value.

CA-3.5.11 In the case of IMB, the lessor's exposure in such a case described in Paragraph CA-3.5.10 would not be significant, as the option to purchase can be exercised by making a payment of a token amount and the lessee would have no reason to refrain from exercising it. Moreover, the residual value of the asset in the lessor's book at the term of a full payout of the IMB (i.e. its residual value as assumed in fixing the lease rentals) would be zero or close to zero.

Credit Risk –Ijarah and IMB

CA-3.5.12 In a binding promise to lease, PL, when an Islamic bank licensee is exposed to default on the lease orderer's obligation to execute the lease contract, the exposure is measured as the amount of the asset's total acquisition cost to the Islamic bank licensee, less the market value of the asset under the ownership of the lessor subject to any haircut (see Paragraph CA-4.7.25), and less the amount of any urbun received from the lease orderer. The applicable RW must be based on the credit standing of the obligor as rated by an ECAI that is approved by the CBB or where the use of SCRA is appropriate (refer to section CA-4.6), and in the case the obligor is unrated, a RW of 100% applies. The Islamic bank licensee may or may not have the right to recoup from the customer any loss on leasing or disposing of the asset after taking account of the HJ, depending on the terms of the contract.

⁶ The contract should include clauses which state clearly that the lessor will bear the total/major destruction or loss of the property without any fault of the tenant, unless it has a takaful cover



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CA-3.5 Ijarah and Ijarah Muntahia Bittamleek (continued)

CA- 3.5.13

In applying the treatment as set out in Paragraph CA-3.5.12, the Islamic bank licensee must ensure that the PL is properly documented and is legally enforceable. In the absence of proper documentation and legal enforceability, the asset is to be treated similarly to one in a non-binding PL which is exposed to market (price) risk, using the measurement approach as set out in Subparagraph CA-3.5.18(a).

Credit Risk - Operating Ijarah

CA-3.5.14

In addition to the credit risk mentioned in Paragraph CA-3.5.12, when the lessee gets the right to use the asset, the lessor is exposed to credit risk for the estimated value of the lease payments in respect of the remaining period of the Ijarah. This exposure is mitigated by the market value of the leased asset (subject to the applicable haircut) (see Paragraph CA-4.7.25). The net credit risk exposure is assigned a RW based on the credit standing of the lessee/counterparty as rated by an ECAI that is approved by the CBB or where the use of SCRA is appropriate. In the case that the lessee is unrated, a RW of 100% applies. See Paragraph CA-4.7.25 for eligible collateral.

Credit Risk - IMB

CA-3.5.15

In addition to credit risk mentioned in Paragraphs CA-3.5.12 and CA-3.5.13, the capital requirement for IMB is based on the following two components:

- Total estimated future Ijara receivable amount over the duration of the lease contract: This exposure is mitigated by the market value of the leased asset (subject to any haircut if it is eligible collateral) (see Paragraph CA-4.7.25). The net credit risk exposure must be assigned a RW based on the credit standing of the lessee/counterparty as rated by an ECAI that is approved by the CBB or where the use of SCRA is appropriate. In cases where the lessee is unrated, a RW of 100% applies; and
- Price risk attached to the expected residual fair value of a leased asset: This exposure is treated under Paragraph CA-3.5.20.



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CA-3.5 Ijarah and Ijarah Muntahia Bittamleek (continued)

Exclusions from Credit Risk for Ijarah and IMB

CA-3.5.16

The capital requirement must be calculated on the receivable amount, net of:

- (a) Specific provisions;
- (b) Any amount that is secured by eligible collateral (as defined in Paragraph CA-4.7.25); and
- (c) Any amount which is past due by more than 90 days (see Section CA-4.2).

Market Risk – Ijarah and IMB

CA-3.5.17

In the case of an asset acquired and held for the purpose of either operating Ijara or IMB, the capital charge to cater for market (price) risk in respect of the leased asset from its acquisition date until its disposal can be categorised as follows:

- (a) **Non-binding PL**
The asset for leasing will be treated as inventory of the Islamic bank licensee and, using the simplified approach, the capital charge applicable to such a market risk exposure is 15% of the amount of the asset's market value); and
- (b) **Binding PL**
In a binding PL, an Islamic bank licensee is exposed to default on the lease orderer's obligation to lease the asset in its possession. In the event of the lease orderer defaulting on its PL, the Islamic bank licensee will either lease or dispose of the asset to a third party. The Islamic bank licensee will have recourse to any HJ paid by the customer¹⁵, and (i) may have a right to recoup from the customer any loss on leasing or disposing of the **asset less the amount of any HJ**, or (ii) may have no such right, depending on the legal situation. In both cases, this risk is mitigated by the asset in possession as well as any HJ paid by the lease orderer.

¹⁵ In the case of HJ, the amount can only be deducted for damages – that is, the difference between the asset acquisition cost and the total of lease rentals (when the asset is leased to a third party) or selling price (when the asset is sold to a third party), whichever is applicable.



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CA-3.5 Ijarah and Ijarah Muntahia Bittamleek (continued)

CA-3.5.18

In case CA-3.5.17(b)(i), if the down-payment was made as HJ, the Islamic bank licensee has the right to recoup any loss (as indicated in the previous paragraph) from the customer; that right constitutes a claim receivable which is exposed to credit risk, and the exposure must be measured as the amount of the asset's total acquisition cost to the Islamic bank licensee, less the market value of the asset under the ownership of the lessor and where it is eligible collateral (see Paragraph CA-4.7.25) subject to any haircut, and less the amount of any HJ. The applicable RW must be based on the standing of the customer as rated by an ECAI that is approved by the CBB or where the use of SCRA is appropriate. In cases where the obligor is unrated, a RW of 100% applies.

CA-3.5.19

In case CA-3.5.17(b)(ii), the Islamic bank licensee has no right to recoup any losses, and the cost of the asset to the Islamic bank licensee constitutes a market risk (as in the case on a non-binding PL), but this market risk exposure is reduced by the amount of any HJ that the Islamic bank licensee has the right to retain to cover actual damages due to the default of the lessee in fulfilling his/her obligations.

Market Risk- Operating Ijarah

CA-3.5.20

The residual value of the asset is risk-weighted at 100%. Upon expiry of the lease contract, the carrying value of the leased asset must carry a capital charge of 15% until the asset is re-leased or disposed of.

Market Risk - IMB

CA-3.5.21

In the event that the lessee exercises its contractual right to cancel the lease, the lessor is exposed to the residual value of the leased asset being less than the additional rental on the basis of the promise to own that forms part of the periodic rental payments. In such a case, the price risk, if any, is already reflected in a 'haircut' to be applied to the value of the leased asset under the ownership of the lessor in credit risk. Therefore, the price risk, if any, is not applicable in the context of the IMB.



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CA-3.5 Ijarah and Ijarah Muntahia Bittamleek (continued)

Summary of Capital Requirement at Various Stages of the Contract

CA-3.5.22

The following tables set out the applicable stage of the contract that attracts capital charges:

Operating Ijara

Applicable Stage of the Contract	Credit RW	Market Risk Capital Charge
Asset available for lease (prior to signing a lease contract)	Binding PL* Asset acquisition cost less (a) market value of asset (net of any haircuts), and (b) any HJ multiply by the customer's rating or 100% RW for unrated customer	Non-binding PL 15% capital charge until lessee takes possession
Asset available for lease and the lease rental payments are due from the lessee	Total estimated value of lease receivables for the whole duration of leasing contract is risk-weighted according to the lessee's rating. 100% RW for an unrated lessee less recoverable value of the leased asset	The residual value is risk-weighted at 100%
Maturity of contract term and the leased asset is returned to the bank	Not applicable	15% capital charge of the carrying value of the asset

* This credit RW is applicable only when the bank has recourse to any HJ paid by the customer, and (depending on the legal situation) may have a right to recoup from the customer any loss on leasing or disposing of the asset to a third party, after taking account of the HJ. If the bank has no such right, the cost of the asset to the bank constitutes a market risk (as in the case of a non-binding PL), but this market risk exposure is reduced by the amount of any HJ that the bank has the right to retain to cover actual damages due to the default of the lessee in fulfilling his/her obligations.



MODULE	CA: Capital Adequacy
CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.5 Ijarah and Ijarah Muntahia Bittamleek (continued)

CA-3.5.23

IMB

Applicable Stage of the Contract	Credit RW	Market Risk Capital Charge
Asset available for lease (prior to signing a lease contract)	Binding PL* Asset acquisition cost less (a) market value of asset fulfilling function of collateral (net of any haircuts), and (b) any HJ multiplied by customer's rating or 100% RW for unrated customer	Non-binding PL 15% capital charge until lessee takes possession
Upon signing a lease contract and when the lessee has the right to use the asset and the lease rental payments are due from the lessee	Total estimated value of lease receivables for the whole duration of leasing contract is risk-weighted according to the lessee's credit rating. 100% RW for an unrated lessee less recoverable value of the leased asset	Not applicable
Maturity of contract term and the leased asset is sold and the asset ownership is transferred to the lessee	Not applicable	Not applicable

* This credit RW is applicable only when the bank has recourse to any HJ paid by the customer. In the case of HJ (depending on the legal situation), the bank may have a right to recoup from the customer any loss on leasing or disposing of the asset to a third party, after taking account of the HJ, while any excess HJ over and above actual damages must be refunded. If the bank has no such right, the cost of the asset to the bank constitutes a market risk (as in the case of a non-binding PL).



MODULE	CA:	Capital Adequacy
CHAPTER	CA-3:	The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.6 Musharakah and Diminishing Musharakah

Introduction

- CA-3.6.1 This Section sets out the minimum capital adequacy requirement to cover the risk of loss on invested capital arising from entering into contracts or transactions that are based on the Sharia rules and principles of Musharakah and Diminishing Musharakah where the Islamic bank licensee and their customers/partner(s) contribute to the capital of the partnership and shares its profit or loss.
- CA-3.6.2 This Section is applicable to both (a) Musharakah in which all the partners' share remains constant throughout the contract period; and (b) Diminishing Musharakah in which the share of the Islamic bank licensee is gradually reduced during the tenure of the contract until it is fully sold to the other partner(s).
- CA-3.6.3 Musharakah contracts refer to partnerships in specific transactions or projects. These exclude participation in the share capital (equity) of other enterprises which is covered in Section CA-4.8.
- CA-3.6.4 A Musharakah is an agreement between the Islamic bank licensee and a customer to contribute capital in various/certain proportions to an enterprise, whether existing or new, or to ownership of a real estate or moveable asset, either on a permanent basis, or on a diminishing basis where the customer progressively buys out the share of the bank in order to own the asset completely ("Diminishing Musharakah"). Profits generated by that enterprise or real estate/asset are shared in accordance with the terms of Musharakah agreement whilst losses are shared in proportion to the respective contributor's share of capital.
- CA-3.6.5 An Islamic bank licensee may enter into a Musharakah contract with a customer as a means of providing a financing to the latter on a profit sharing and loss bearing basis. In this case, the Musharakah is normally of the diminishing type, in which the customer gradually purchases the Islamic bank licensee's partnership share over the life of the contract. This type of financing is one of the Sharia compliant alternatives to avoid a conventional term loan repayable by instalments, and as such it is exposed to credit risk for the customer's purchase payments as well as to the risk attached to the Islamic bank licensee's share of the underlying assets.



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CA-3.6 Musharakah and Diminishing Musharakah (continued)

Musharakah

- CA-3.6.6 This Section sets out the minimum capital adequacy requirement to cater for “capital impairment risk”, the risk of losing the amount contributed to an enterprise or ownership of an asset. The Islamic bank licensee acts as a partner in a Musharakah contract and is exposed to the risk of losing its capital upon making payment of its share of capital in a Musharakah contract. A Musharakah can expose the Islamic bank licensee either to capital impairment risk or to ‘credit risk’, depending on the types of assets in which the funds are invested. The invested capital is redeemable either by liquidation of the Musharakah assets at the end of the contract which has a fixed tenure or as mutually agreed by the partners, or upon divestment of partnership in an on-going Musharakah subject to giving a notice to other partners. The amount of capital redemption is represented by the value of a share of capital, which is dependent on the quality of the underlying investments or assets, and ability to generate profits and cash flows from the Musharakah.
- CA-3.6.7 As a partner to a Musharakah contract, the Islamic bank licensee is not entitled to a fixed rate of return and is thus exposed to variable profits generated by the partnership which are shared on a basis as agreed in the Musharakah contract, whereas losses are to be borne by the Islamic bank licensee and its partners according to their respective ratio of invested capital. Therefore, the Islamic bank licensee is exposed to entrepreneurial risk of an active partner that manages the partnership and business risks associated with the underlying activities and types of investments or assets of the partnership.
- CA-3.6.7A For the purpose of determining the minimum capital adequacy requirement, this Section makes distinctions between the three main categories of Musharakah as set out below:
- (a) Private commercial enterprise to undertake trading activities in foreign exchange, shares and/or commodities
- This type of Musharakah exposes the Islamic bank licensee to the risk of underlying activities, namely foreign exchange, equities or commodities;

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CA-3.6 Musharakah and Diminishing Musharakah (continued)

- (b) Private commercial enterprise to undertake a business venture (other than (a))
This type of Musharakah exposes the Islamic bank licensee to the risk as an equity holder, which is similar to the risk assumed by a partner in venture capital or a joint venture, but not to market risk. As an equity investor, the Islamic bank licensee serves as the first loss position and its rights and entitlements are subordinated to the claims of secured and unsecured creditors. For further explanation of the nature of risk in such ventures, see Paragraphs CA-4.8.4 to CA-4.8.6; and
- (c) Joint ownership of real estate or movable assets (such as cars) is divided into two sub-categories:
- (i) Musharakah in Ijara contract
Ownership of such assets can produce rental income for the partnership, through leasing the assets to third parties by means of Ijara contracts. In this case, the risk of the Musharakah investment is essentially that of the underlying Ijara contracts – that is, credit risk mitigated by the ability of the partners to repossess the leased assets.
- However, in some cases the lessee is not a third party but the Islamic bank licensee's partner as customer. The existence of such an Ijara sub-contract in addition to a Musharakah exposes the Islamic bank licensee to credit risk in respect of the partner's obligation to service the lease rentals and
- (ii) Musharakah in Murabahah contract
The Islamic bank licensee is entitled to its share of revenue generated from selling the assets to third parties by means of Murabahah contracts that expose the Islamic bank licensee to credit risk in respect of the Murabahah receivables from the buyer/counterparty.

Diminishing Musharakah

- CA-3.6.8 The Islamic bank licensee's position in a diminishing Musharakah is set out in Paragraphs CA-4.8.12 to CA-4.8.15.



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CA-3.6 Musharakah and Diminishing Musharakah (continued)

Equity Position Risk - Musharakah

CA-3.6.9

For Musharakah, the equity exposure is measured based on the nature of the underlying investments as follows:

- For investments held in the trading book, exposure is equal to the fair value; and
- For investments held to maturity, exposure is equal to the carrying value, which may be the fair value or the historical cost less any provisions for impairment.

CA-3.6.10

For private commercial enterprises undertaking trading activities in foreign exchange, shares or commodities, the Musharakah exposures, net of provisions is measured as follows:

- The RW is based on the applicable underlying assets as set out in the market risk section in Chapter CA-5.
The investment in foreign exchange and trading in gold/silver is measured according to the treatment as set out in Section CA-5.5, which requires 8% capital charge on the greater of either net long or net short positions in foreign exchange and 8% capital charge on the net long position of gold/silver;
- The RW of a Musharakah that invests in quoted shares is measured according to the equity position risk approach, where positions in assets tradable in markets qualify for treatment as equity position risk in the trading book, which incur a total capital charge of 16% as set out in Section CA-5.3; and



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CA-3.6 Musharakah and Diminishing Musharakah (continued)

- (c) Investment in commodities is measured according to either the maturity ladder approach or the simplified approach as set out in Section CA-5.6.

CA-3.6.11

For private commercial enterprise undertaking a business venture other than in Paragraph CA-3.6.10, the Islamic Bank Licensee must use the simple risk-weight method to calculate the equity exposures in this type of investment. The RW must be applied to the exposures (net of specific provisions) based on equity exposures in the banking book. The RW under the simple RW method for equity position risk in respect of an equity exposure in a business venture must entail a 400% RW for shares that are not publicly traded less any specific provisions for impairment. If there is a third-party undertaking to make good impairment losses, the RW of the third party must be substituted for that of the assets for the amount of any such undertaking.



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CA-3.6 Musharakah and Diminishing Musharakah (continued)

Joint Ownership of Real Estate and Movable Assets (such as cars)

CA-3.6.12

Musharakah in Ijara contract:

Income-producing Musharakah through leasing to third parties by means of Ijara contracts exposes the capital contributor to the risk of that underlying Ijara contract – that is, counterparty risk mitigated by the value of leased assets. This Musharakah investment is assigned a RW based on the credit standing of the counterparty/lessee, as rated by an ECAI that is approved by the CBB or where the use of SCRA is appropriate, and a 100% RW on the residual value of an Ijara asset (operating lease). In cases where the counterparty is unrated, a RW of 100% applies. (Please refer to the treatment for Ijara as set out in Paragraph CA-3.5.22.)

CA-3.6.13

Musharakah in Murabahah contract:

Income-producing Musharakah through selling to third parties by means of Murabahah contracts exposes the capital contributor to the risk of that counterparty/buyer. This Musharakah investment is assigned a RW based on the credit standing of the counterparty /buyer, as rated by an ECAI that is approved by the CBB. In cases where the counterparty is unrated, a RW of 100% applies. (Please refer to the treatment for Murabahah as set out in Section CA-3.2.

Equity Position Risk – Diminishing Musharakah

CA-3.6.14

The equity exposure in a Diminishing Musharakah contract, where the Islamic bank licensee has provided funds for the working capital of the partnership and intends to transfer its full ownership in movable assets and working capital to the other partner over the life of the contract, is calculated based on the remaining balance of the amount invested (measured at historical cost including any share of undistributed profits) less any specific provision for impairment. The exposure must be risk weighted according to the nature of the underlying assets as set out in Paragraphs CA-3.6.11 to CA-3.6.14. If a third party undertaking exists, to make good impairment losses, the RW of the third party is substituted for that of the assets (if lower) for the amount of any such undertaking.



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CA-3.6 Musharakah and Diminishing Musharakah (continued)

Summary of Capital Requirement at Various Stages of the Contract

CA-3.6.15

The following table sets out the Musharakah categories that attract capital charges:

Musharakah Category	Credit RW	Market Risk Capital Charge
Private commercial enterprise to undertake trading activities in the foreign exchange, share and/or commodity	Not applicable.	Depends on the underlying asset as set out in the applicable <u>market risk</u> section
Private commercial enterprise to undertake business venture other than trading activities in the foreign exchange, share and/ or commodity	Simple RW method 400% RW of the contributed amount* to the business venture less any specific provisions. (If there is a third-party undertaking, the RW of the third party is substituted for that of the assets for the amount of any such undertaking)	Not applicable
Joint ownership of real estate and movable assets (Musharakah with Ijara sub-contract, Musharakah with Murabahah subcontract)	Based on lessee's (for Ijara sub-contract) or customer's (for Murabahah sub-contract) rating or 100% RW for unrated lessee or customer	Please refer to the <u>market risk</u> capital charge requirements as set out under the sub-contracts

* In the case of Diminishing Musharakah, the contributed amount is based on the remaining balance of the invested amount.



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CA-3.7 Mudarabah

Introduction

- CA-3.7.1 This Section sets out the minimum capital adequacy requirement to cover the risk of losing invested capital arising from entering into contracts or transactions that are based on the Shari'a rules and principles of Mudarabah where the Islamic bank licensee assumes the role of capital provider ('rab al mal'). This Section is applicable to both restricted and unrestricted Mudarabah financing.
- CA-3.7.2 A Mudarabah is an agreement between the Islamic bank licensee and a customer whereby the Islamic bank licensee would contribute capital to an enterprise or activity which is to be managed by the customer as the (labour provider or) Mudarib.
- CA-3.7.3 Profits generated by that enterprise or activity are shared in accordance with the terms of the Mudarabah agreement whilst losses are to be borne solely by the Islamic bank licensee unless the losses are due to the Mudarib's misconduct, negligence or breach of contracted terms.
- CA-3.7.4 A Mudarabah financing can be carried out on either:
- (a) A restricted basis, where the capital provider allows the Mudarib to make investments subject to specified investment criteria or certain restrictions such as types of instrument, sector or country exposures, etc.; or
 - (b) An unrestricted basis, where the capital provider allows the Mudarib to invest funds based on the latter's skills and expertise.
- CA-3.7.5 As the capital provider, the Islamic bank licensee is exposed to the risk of losing its capital investment ('capital impairment risk') upon making payment of the capital to the Mudarib. Any loss on the investment is to be borne solely by the capital provider, but is limited to the amount of his capital. Losses that are due to misconduct, negligence or breach of contractual terms, are to be borne by the Mudarib.
- CA-3.7.6 While it is not permissible for a Mudarib to give an undertaking against losses outlined in Paragraph CA-3.7.5, such an undertaking may be given by a third party on the basis of tabarru (donation). In such a case, the amount of the Mudarabah capital may be considered as subject to credit risk with a risk weighting equal to that of the third party.
- CA-3.7.7 Undertakings referred to in Paragraph CA-3.7.6 may be given when liquid funds are placed in an Islamic interbank market under a Mudarabah contract.



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CA-3.7 Mudarabah (continued)

Equity Position Risk

CA-3.7.8 Apart from placements identified in Paragraph CA-3.7.7, Mudarabah contracts are commonly used for the investment purposes mentioned in Paragraph CA-3.7.10.

CA-3.7.9 In assigning the RW, consideration is given to the intent of the Mudarabah investment, and to the nature of the underlying assets. The intent may be:

- (a) The purchase of assets for trading;
- (b) Investing on an equity basis in an ongoing business venture with the intention of holding the investment for an indefinite period, perhaps with a view to eventual sale (e.g. venture capital investments); or
- (c) Project finance. The underlying assets may be tradable assets such as commodities, foreign exchange or securities, or business assets such as real property, plant and equipment, and working capital. Real property and movable property may also be purchased with a view to generating rental income by means of Ijara contracts.

CA-3.7.10

For the purpose of calculating the minimum capital requirement, Islamic bank licensees must make distinctions between the three main categories of Mudarabah, as set out in Paragraphs CA-3.7.11 to 3.7.13.

Private Commercial Enterprise to Undertake Trading Activities in Foreign Exchange, Shares or Commodities.

CA-3.7.11 This type of Mudarabah exposes the Islamic bank licensee to the risk of the underlying activities, namely foreign exchange, equity or commodities.

Private Commercial Enterprise to Undertake a Business Venture (other than outlined in Paragraph CA-3.7.11.)

CA-3.7.12 This type of Mudarabah exposes the Islamic bank licensee to risk as an equity holder, which is similar to the risk assumed by a partner in venture capital or a joint venture, but not to market risk. As an equity investor, the Islamic bank licensee serves as the first loss position and its rights and entitlements are subordinated to the claims of secured and unsecured creditors. For further explanation of the nature of risk in such ventures, see Paragraphs CA-4.8.4 to CA-4.8.6.



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CA-3.7 Mudarabah (continued)

Mudarabah Investments in Project Finance

CA-3.7.13 An Islamic bank licensee advances funds to a customer who acts as Mudarib in a construction contract for a third-party customer (ultimate customer). The ultimate customer will make progress payments to the Mudarib who, in turn, makes payments to the Islamic bank licensee. The essential role of the Islamic bank licensee in this structure is to provide bridging finance to the Mudarib pending its receipt of the progress payments.

In this type of construction contract Mudarabah investment structure:

- The Islamic bank licensee has no direct or contractual relationship with the ultimate customer (but the Islamic bank licensee may stipulate that payments by the ultimate customer to the Mudarib be made to an account (“repayment account”) with the Islamic bank licensee which has been opened for the purpose of the Mudarabah and from which the Mudarib may not make withdrawals without the Islamic bank licensee’s permission); and
- The Islamic bank licensee as investor advances funds to the construction company as Mudarib for the construction project and is entitled to a share of the profit of the project but must bear 100% of any loss.

CA-3.7.14 The Islamic bank licensee is exposed to the risk on the amounts paid to the Mudarib, and as these amounts are made on a profit-sharing and loss-bearing basis they are treated under credit risk as equity positions in the banking book. In principle, the Islamic bank licensee’s credit exposure is to the Mudarib, not to the ultimate customer; however, as described below, a structure may involve the use of a “repayment account” to receive progress payments from the ultimate customer, which transfers much of the credit risk to the latter.

CA-3.7.15 In addition to credit risk (i.e. that the Mudarib has received payment from the ultimate customer but fails to pay the Islamic bank licensee, or that the ultimate customer fails to pay), the Islamic bank licensee is exposed to capital impairment in case the project results in a loss.



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CA-3.7 Mudarabah (continued)

Direct Payment by Ultimate Customer into a "Repayment Account" Opened with the Bank and Effectively Pledged to the Bank

CA-3.7.16 Much of the Islamic bank licensee's credit exposure to the Mudarib may be transferred to the ultimate customer under this structure involving the "repayment account". If the ultimate customer is a sovereign or otherwise has a very low risk-weighting, this may affect the RW to be applied to the exposure, and other credit risk mitigants may be applied, as described below.

CA-3.7.17 In a construction related transaction, provided the construction work proceeds normally and to the ultimate customer's satisfaction, the risk attaching to the progress payments due from the ultimate customer to the Mudarib will be the credit risk of the ultimate customer. However, this does not per se constitute a mitigation of the credit risk of the Islamic bank licensee's exposure to the Mudarabah. In such a case, if an independent engineer employed to certify that the work has reached a certain stage of completion has issued a certificate to that effect, so that a progress payment is due from the ultimate customer, from the point of view of the Islamic bank licensee the amount of that progress payment due is no longer exposed to the risk of unsatisfactory performance by the Mudarib, but only to the latter's failure to pay the Islamic bank licensee (the Mudarabah being exposed to possible default by the ultimate customer). Such an amount might thus arguably bear a RW based entirely on the credit standing of the Mudarib – refer to CA-4.2.24.

CA-3.7.18 Other structures may be used which have the effect of modifying the risk exposures of the investors in a Mudarabah. The determination of the risk exposure (nature and amount) must take into account the structure which must be reflected in the application of RW.

Equity Position Risk

CA-3.7.19 The equity exposure must be measured based on the nature of the underlying investments:

- For investments held in the trading book, the exposure is equal to the fair value; or
- For investments held to maturity, the exposure is equal to the carrying value – that is, either the fair value or the historical cost less any provisions for impairment.



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CA-3.7 Mudarabah (continued)

CA-3.7.20

The Mudarabah exposures, must be measured net of specific provisions.

Private Commercial Enterprise to Undertake Trading Activities in Foreign Exchange, Shares or Commodities

CA-3.7.21

The RW must be based on the applicable underlying assets as set out in the market risk section in Chapter CA-5. An investment in foreign exchange and trading in gold/silver must be measured according to the treatment set out in Section CA-5.5, which requires an 8% capital charge on the greater of either net long or net short positions and an 8% capital charge on the net position of gold/silver.

The RW of a Mudarabah that invests in quoted shares must be measured according to the equity position risk approach where positions in assets tradable in markets qualifies for treatment as equity position risk in the trading book, which incurs a total capital charge of 16% (equivalent to 200% RW) as set out in Section CA-5.3.

Investment in commodities must be measured according to either the maturity ladder approach or the simplified approach, as set out in Section CA-5.6.

Private Commercial Enterprise to Undertake a Business Venture (other than Paragraph CA-3.7.21)

CA-3.7.22

The equity exposures in this type of investment can be measured using the simple risk-weight method as detailed in CA-4.2.24.



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CA-3.7 Mudarabah (continued)

Mudarabah Investment in Project Finance

CA-3.7.23

The Islamic bank licensee's overall credit exposure in respect of the Mudarabah in such a case is divided into three parts:

- (a) The amount receivable by the Islamic bank licensee from the Mudarib in respect of progress payments due to the Mudarib from the ultimate customer for work certified as having reached a certain stage of completion; the RW **would** reflect the credit standing of the Mudarib (or 100% RW for unrated customer);
- (b) The amount held in the "repayment account" with the Islamic bank licensee, which has a risk weighting of 0%; and
- (c) **Any** remaining balance of the funds advanced by the Islamic bank licensee to the Mudarib, **would** incur a RW **as detailed in CA-4.2.24.**



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CA-3.7 Mudarabah (continued)

Summary of Capital Requirements for Mudarabah Categories

CA-3.7.24

The Mudarabah categories that attract capital charges of Paragraphs CA-3.7.11 and CA-3.7.12 are:

Mudarabah Category	Credit RW	Market Risk Capital Charge
Private commercial enterprise to undertake trading activities in the foreign exchange, share and/or commodity	Not applicable	Depends on the underlying asset as set out in the applicable <u>market risk</u> section
Private commercial enterprise to undertake business venture other than trading activities in the foreign exchange, share and/or commodity	Simple risk-weight method: 400%* RW of the contributed amount to the business venture less any specific provisions	Not applicable

* Mudarabah involving a commercial enterprise will be considered as unlisted equity exposure as per CA-4.2.24.



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CA-3.7 Mudarabah (continued)

CA-3.7.25

The applicable stages in a Mudarabah contract in project finance that attract capital charges of Paragraph CA-3.7.13 are:

Applicable Stages in a Contract	Credit RW	Market Risk Capital Charge
Prior to certification, where funds are already advanced by the bank to the Mudarib	Risk weight is based on the rating of either the ultimate customer or the Mudarib (see Paragraph CA-3.7.13). Otherwise, 400% RW* is applied to an unrated Mudarib.	Not applicable
After certification, where the amount is receivable by the bank from the Mudarib in respect of progress payment to the Mudarib from the ultimate customer	If a "repayment account" or similar mitigation structure is used, RW is based on the credit standing of the ultimate customer on the amounts receivable by the bank from the Mudarib (or 100% RW for unrated customer).	Not applicable

* Mudarabah involving a commercial enterprise will be considered as unlisted equity exposure that are invested for short-term for resale purposes or are considered venture capital or similar investments (see Paragraph CA-4.2.24).

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CA-3.8 Sukuk [This Section was moved to Chapter CA-8 in January 2015].



MODULE	CA: Capital Adequacy
CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.9 Qard Hasan

Introduction

- CA-3.9.1 This Section sets out the minimum capital requirement to cover the risk of losing capital arising from entering into contracts or transactions that are based on the Shari'a rules and principles of Qard.
- CA-3.9.2 Qard is a loan given by an Islamic bank licensee, where the borrower is contractually obliged to repay only the principal amount borrowed.¹⁶ In the contract of Qard, no payment in addition to the principal amount lent may be required, as that would be a form of Riba.
- CA-3.9.3 If a fixed period of repayment is stipulated in the contract, the borrower is liable to pay back the principal amount to the Islamic bank licensee on or before the agreed date of payment. On the other hand, if no period is stipulated in the contract, it is binding upon the borrower to make a repayment of the loaned amount to the lender on demand.

Collateralisation

- CA-3.9.4 As one of the CRM techniques, Islamic bank licensees can secure a pledge of a tangible asset. The collateralisation is not automatically provided in a Qard contract but must be explicitly stated or must be documented in a separate security agreement at or before the time of signing of the Qard contract. The Islamic bank licensee may employ other techniques such as pledge of deposits/PSIA or a third-party financial guarantee.

¹⁶ As a business entity, banks provide financing to their customers to perform their role as financial intermediary and seek an opportunity to earn profits for their enterprise and for distribution to their shareholders and fund providers. Therefore, most banks will not be providing any significant amount of lending on the basis of Qard, as Shari'a rules and principles require the borrower to pay only the principal amount in that case. Nonetheless, a bank survey has shown that, in several jurisdictions, some banks do provide Qard-based lending for different reasons. These vary widely among banks and may include: (a) lending to some specific type of clients such as the poor, needy or widows, etc. as a part of Corporate Social Responsibility practice; (b) lending out of their Charity Account (built out of their non-permissible income) to small entrepreneurs and new businesses that do not have access to sufficient assets that can be used as collateral; (c) lending as a part of their business product – that is, not out of the Charity Account; (d) providing funding to various microfinance institutions or customers; and (e) lending mainly for marketing or public acceptance purposes, where a small portion of the overall financing portfolio is allocated to support certain activities of underprivileged sections of the population, etc.



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CA-3.9 Qard (continued)

Credit Risk

CA-3.9.5 Islamic bank licensees are exposed to credit risk in the event that the borrower fails to repay the principal amount in accordance with the agreed terms of the contract. In a Qard contract, credit risk exposure commences upon the execution of the contract until the full repayment by the borrower.

CA-3.9.6 The credit exposure is measured based on account receivable in Qard – that is, the amount due from the customer at the end of the financial period less any provision for doubtful debts.

CA-3.9.7 The account receivable amount (net of specific provisions) arising from the Qard contract must be assigned a RW based on the credit standing of the borrower, as rated by an ECAI that is approved by the CBB **or where the use of SCRA is appropriate** (see Section CA-4.6). In cases where the borrower is unrated, a RW of 100% applies. The RW of a financial guarantor can be substituted for the RW of the borrower provided that the guarantor has a better credit rating than the borrower and that the guarantee is **irrevocable and** legally enforceable. If an exposure is covered by multiple CRM techniques, the exposure must be segregated into segments covered by each type of CRM technique as specified in Section CA-4.7. For any uncovered exposure, the RW of the underlying counterparty applies.

Market Risk

CA-3.9.8 In the case where a cash loan is provided by the Islamic bank licensee, there is no element of market risk. If, however, a loan is provided in a currency other than the local currency or in the form of a commodity, the related market risk is applicable, as outlined in Section CA-5.6.



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CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.9 Qard (continued)

Summary of Capital Requirement for Qard-based Lending

CA-3.9.9

The following table sets out capital charges for lending on the basis of Qard:

Exposure	Credit RW	Market Risk Capital Charge
Accounts receivable from customer	Exposure is equal to the amount of loan (less specific provisions) X customer's rating (or 100% RW for unrated customer).	Not applicable*

*Applicable only if Qard-based lending is made in the foreign currency or in commodities.



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CA-3.10 Wakalah

Introduction

- CA-3.10.1 This Section sets out the minimum capital adequacy requirement to cover the risk of losing invested capital arising from an Islamic bank licensee entering into asset-side financing contracts or transactions that are based on the Sharī'a rules and principles of Wakalah bil al-istithmar.
- CA-3.10.2 An Islamic bank licensee assumes the role of a principal (Muwakkil) and appoints the customer as agent (Wakil) to carry out a specified set of services or act on its behalf. This Section is applicable to both restricted and unrestricted Wakalah financing.
- CA-3.10.3 Wakalah is a contract of agency whereby one person contracts to perform any work or provide any service on behalf of another person. Businesses rely on a range of individuals to act on their behalf; these include employees, directors, partners, and a range of professional agents. An action performed by an agent on behalf of the principal will be deemed to be an action by the principal. An agent will obtain fees for services rendered according to the contractual reward structure offered by the principal which may incorporate a performance-related element.
- CA-3.10.4 Profits generated are distributed to the Muwakkil less the Wakil fee, in accordance with the terms of the Wakalah agreement. In case the contract includes some "expected" profit rate on the investment, the Wakalah contract can include a clause stipulating that the Wakil's remuneration may be:
- (a) A pre-agreed flat fee; or
 - (b) A certain share of profit added to a pre-agreed flat fee, subject to the terms and conditions.
- CA-3.10.4A Another term used by Islamic bank licensee for investment of funds on a wakālah basis is wakālah bi alistismār. In a wakālah bi al-istismār contract (meaning agency services for management of funds), an Islamic bank licensee can manage the funds of other investors (which can be individuals, corporate entities, institutions or Islamic banks) against a pre-agreed flat fee irrespective of the profit or loss on the relevant investment. This fee may be paid in one lump sum or as periodic (e.g. monthly or annual) remuneration as a percentage of the amount invested or the net asset value of the fund. Any one of the aforesaid bases should be agreed before the launch of any fund or other financial product by an Islamic bank licensee that is working as wakil.



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CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.10 Wakalah (continued)

- CA-3.10.5 A Wakalah financing can be carried out on either:
- (a) A restricted basis, where the capital provider allows the Wakil to make investments subject to specified investment criteria or certain restrictions such as types of instrument, sector or country exposures etc.; or
 - (b) An unrestricted basis, where the capital provider allows the Wakil to invest funds freely based on the latter's skills and expertise. For interbank Wakalah, the Wakil is permitted by the Muwakkil to invest the investment amount on a discretionary basis, but only in Shari'a-compliant transactions.
- CA-3.10.6 As the Muwakkil, the Islamic bank licensee is exposed to the risk of losing its invested capital – that is, capital impairment risk. Any loss on the investment is to be borne solely by the Muwakkil **even if it exceeded** its capital. Losses that are due to fraud, misconduct, negligence or breach of contractual terms are to be borne by the Wakil. The Wakil shall be entitled to any pre-agreed flat Wakil fee irrespective of whether the actual profit is less than, equal to or greater than any expected profit, and also in the event of a loss.
- CA-3.10.7 However, while it is not permissible for a Wakil to give **an undertaking** against losses or for any indicative or expected profits, such **an undertaking** may be given by a third party on the basis of tabarru' (donation). In such a case, the amount of the Wakalah capital so **that is the subject of the undertaking** may be considered as subject to credit risk with a risk-weighting equal to that of the third party, **provided that the third party has a better credit rating than the wakil and that the undertaking is irrevocable and legally enforceable**. In particular, such **undertaking** may be given when liquid funds are placed in an Islamic interbank market under a Wakalah contract.
- CA-3.10.8 In the absence of any fraud, misconduct, negligence or breach of contractual terms on the part of Wakil, all the risk of loss on the investment is to be borne by the Muwakkil. Therefore, the Islamic bank licensee is exposed to the skills of the Wakil that manages the investments on behalf of the Islamic bank licensee, as well as to business risks associated with the underlying activities and types of investments or assets of the Wakalah agreement.

Capital Requirements

- CA-3.10.9 For the purpose of determining the minimum capital requirements, this section makes distinctions between the following main categories of Wakalah:
- (a) Wakalah investments to undertake trading activities in foreign exchange, shares and/or commodities, including Commodity Murabaha Transactions (CMTs);
 - (b) Wakalah investments with a private commercial enterprise to undertake business activities (other than (a) above); and
 - (c) Wakalah placement in the interbank market.



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CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.10 Wakalah (continued)

CA-3.10.10 The Wakalah exposures, are measured net of specific provisions as set out below.

Wakalah Investments to Undertake Trading Activities in Foreign Exchange, Shares and/or Commodities, including CMT

CA-3.10.11 The RW is based on the applicable underlying assets as set out in the market risk section in Chapter CA-5. An investment in foreign exchange and trading in gold or silver must be measured according to the treatment as set out in Section CA-5.5, which requires an 8% capital charge on the greater of either net long or net short positions and an 8% capital charge on the net position of gold/silver.

CA-3.10.12 The RW of a Wakalah for funds that are invested in quoted shares must be measured according to the equity position risk approach, where positions in assets tradable in markets qualify for treatment as equity position risk in the trading book, which incur a total capital charge of 16% (equivalent to 200% RW) as set out in Section CA-5.3.

CA-3.10.13 Investment in commodities must be measured according to either the maturity ladder approach or the simplified approach as set out in Section CA-5.6.

CA-3.10.14 If the Wakalah investment is to be utilised by the Wakil (another Islamic bank licensee) for conducting CMT to earn a (fixed rate of) profit, the investing Islamic bank licensee is primarily exposed to the counterparty risk. In that case, the invested amount (net of specific provisions) must be assigned a RW based on the credit standing of the counterparty as rated by an approved ECAI. In cases where the counterparty is unrated, a RW of 100% applies (see Section CA-4.2).

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CA-3.10 Wakalah (continued)

Wakalah Investments with Private Commercial Enterprise to Undertake Business Activities (other than in Paragraph CA-3.10.11)

CA-3.10.15 This type of Wakalah investment exposes the Islamic bank licensee to capital impairment risk. Due to this downside risk, the RW is measured according to equity position in the banking book approach. The RW must be applied to the exposures net of specific provision, if any.

CA-3.10.16 As explained in Sections CA-3.6 and 3.7, there is one possible method used to calculate the equity exposures, that is the simple risk-weight method.

CA-3.10.17 The RW under the simple risk-weighting method (a) entails a RW weight of 400% if the equity is in common shares of unlisted companies and 250% if the equity is in shares of a publicly listed company as detailed in CA-4.2.24.

Wakalah Placement in the Interbank Market

CA-3.10.18 An Islamic bank licensee may place liquid funds with a central bank or another Islamic bank licensee on a Wakalah basis in order to obtain a return on those funds. Such placements are considered to be more secure than those identified in Paragraphs CA-3.10.11 to CA-3.10.14, owing to the available credit standing of, and the established relationship with, the counterparty in the interbank market.



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CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.10 Wakalah (continued)

CA-3.10.19

A placement of funds made by an Islamic bank licensee with another Islamic bank licensee under a Wakalah agreement (whether on a restricted or unrestricted basis) may be subject to a Shari'a-compliant **undertaking** from a third party. Such **an undertaking** can be related to the amount of principal invested. In such cases, the capital must be treated as subject to credit risk, with a risk weighting equal to that of the **third party** provided that the RW of that **third party** is lower than the RW of the Wakil as counterparty **and the undertaking is irrevocable and legally enforceable**. Otherwise, the RW of the Wakil applies. As explained in Section CA-3.11 related to Mudarabah interbank placement, interbank placement received on a Wakalah basis can also be effectively treated as a liability by the Islamic bank licensee receiving the funds. In the absence of any **undertaking** mentioned earlier, the risk-weighting must be applied based on the credit standing of the counterparty as rated by an approved ECAI, **or as prescribed under the SCRA where it is applicable**, or a RW of 100% for an unrated counterparty.

CA-3.10.20

If the funds placed under a Wakalah arrangement are placed in a foreign currency, in addition to the above treatment, capital charge related to foreign exchange risk is applicable as outlined in Section CA-5.5.

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CA-3.10 Wakalah (continued)

Summary of Capital Requirements for Wakalah Categories

CA-3.10.21 The following table sets out the Wakalah categories that attract capital charges.

Wakalah Category	Credit RW	Market Risk Capital Charge
Wakalah investments to undertake trading activities in foreign exchange, shares and/ or commodities, including CMT	Not applicable	Depends on the underlying asset as set out in the applicable <u>market risk</u> section. See Section CA-5.5 for Wakalah investments in FX. See Section CA-5.3 for Wakalah Investments in shares. See Section CA-5.6 for Wakalah Investments in commodities. See Section CA-3.11 for Wakalah investments in CMT.
Wakalah investments with private commercial enterprise to undertake business activities, other than above categories	(a) Simple risk-weight method 400% or 250% RW of the placed amount less any specific provisions, depending on whether the company is publicly listed or not, See CA-4.2.24.	Not applicable
Wakalah placement in the interbank market	Risk-weighting can be applied based on the credit standing of the counterparty* as rated by the approved ECAI in CA-4.2.10 , or as prescribed under the SCRA (see Paragraph CA-4.2.10A).	Not applicable**

*In the case of a third-party guarantee, the capital must be treated as subject to credit risk with a risk weighting equal to that of the guarantor provided that the RW of that guarantor is lower than the RW of the Wakil as counterparty. Otherwise, the RW of the Wakil applies.

**If funds are invested in foreign exchange, foreign exchange risk will also be applicable as per Section CA-5.5.



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CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.11 Commodity Murabahah Transactions (CMT)

CA-3.11.1 This Section sets out the minimum capital requirements to cover the credit and market risks arising from financing contracts that are based on the Shari'a rules and principles of CMTs, either in the interbank market or to other customers.

CA-3.11.2 Islamic bank licensees can be involved in CMT-based financing in the following forms:¹⁷

- (a) CMT for interbank operations for managing short-term liquidity surplus (i.e. selling and buying of Shari'a-compliant commodities through Murabahah transactions, which is commonly termed "placement" in conventional institutions) or where the counterparty is the central bank or monetary authority offering a Shari'a-compliant lender of last resort and/or a standing facility for effective liquidity management. Such placement/financing is referred to as "commodity Murabahah for liquid funds (CMLF)"; or¹⁸
- (b) CMT for providing financing to a counterparty by a longer-term commodity Murabahah where the counterparty immediately sells the commodities on the spot market is referred to as "commodity Murabahah financing (CMF)".

CA-3.11.3 CMLF is a tool for liquidity management for Islamic bank licensees in order for them to invest their surplus liquid funds on a short-term basis with other market players, within or outside the jurisdiction. In this type of transaction, the RW will be influenced by the credit standing of the counterparty receiving the funds and the duration of the placement.

Capital Requirements

CA-3.11.4 It is crucial for Islamic bank licensees to recognise and evaluate the overlapping nature and transformation of risks that exist between various types of risk. Since the dynamism of risk exposure through the phases of CMT is unique, Islamic bank licensees should break down the contractual timeline for CMT while managing the risks in each phase.

¹⁷ Please see IFSB GN-2 (Guidance Note on CMT, issued in December 2010) for details on various risk management and capital adequacy aspects of CMT that can be conducted on both sides of the balance sheet.

¹⁸ CMLF is also referred to as "commodity Murabahah investment" by some banks in the industry. Strictly speaking, Murabahah should not be classified as an investment, since in fact it is a type of receivable.



MODULE	CA: Capital Adequacy
CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.11 Commodity Murabahah Transactions (continued)

CA-3.11.5 An Islamic bank licensee may be exposed to market risk through any fluctuation in the price of the underlying commodity that comes into its possession for a longer duration than normal – for example, when a customer refuses to honour his commitment to buy or when the promise is non-binding. With CMLF and CMF on the asset side, market risk transforms into credit risk; that is, market risk is applicable before selling the commodities to the counterparty, while upon their being sold to the counterparty on deferred payment terms the market risk converts into credit risk. In view of the market practice relating to CMT whereby the commodities are sold instantaneously after being bought on the basis of a binding promise, there would be no market risk. On the other hand, if an Islamic bank licensee holds title to the commodities for a longer duration than normal in the CMF transaction, a market risk exposure will be present. Placement of funds in currencies other than the local currency will also expose the Islamic bank licensee to foreign exchange risk.

Credit Risk

CA-3.11.6

As in both CMLF and CMF, a binding promise from the customer exists to purchase the commodity; an Islamic bank licensee is exposed to default on the customer's obligation to purchase. In the event of default by the customer, the Islamic bank licensee disposes of the asset to a third party; that is, the credit risk is mitigated by the asset in possession as collateral, net of any haircut. The exposure must be measured as the amount of the total acquisition cost to the Islamic bank licensee for the purchase of commodities, less the market value of the commodities as collateral, subject to any haircut and specific provisions, if any. The RW of the counterparty must be applicable to the resultant receivables,¹⁹ and would be based on credit ratings issued by a recognised ECAI.²⁰ In the case of an unrated counterparty, the applicable RW will be 100%.

CA-3.11.7

In applying the RWs outlined above, an Islamic bank licensee must ensure that the contracts for the transactions are properly documented and legally enforceable in a court of law. In the absence of these features, the commodities are exposed to market risk.

¹⁹ In CMLF and CMF on the asset side, the bank is exposed to market risk in the interval before it sells the commodities to the counterparty, and subsequently to credit risk (accounts receivable risk), which is applicable after the bank sells those commodities to the counterparty.

²⁰ If the credit exposure is funded and denominated in local currency and the counterparty is a domestic sovereign, a 0% risk weight shall be applied. Otherwise, a higher risk weight as suggested by the credit rating of the foreign sovereign is applicable.

MODULE	CA: Capital Adequacy
CHAPTER	CA-3: The Banking Book - Minimum Capital Requirements for Islamic Financing & Investment Assets

CA-3.11 Commodity Murabahah Transactions (continued)

Market Risk

CA-3.11.8 In the presence of a binding promise to purchase from the counterparty (Paragraph CA-3.2.6) and legally enforceable contract documentation, no capital charge is applicable for market risk. Otherwise, a capital charge for commodities risk is applicable, and must be measured by using either the maturity ladder approach or the simplified approach as set out in Section CA-5.6.

CA-3.11.9 In case the exposure is denominated in a foreign currency, a capital charge on the foreign currency exposure must be calculated as outlined in Section CA-5.5.

Summary of Capital Requirements

CA-3.11.10 The following table delineates the applicable stage of the CMLF and CMF on the asset side and associated capital charges.

Applicable Stage of the Contract		Credit RW	Market Risk Capital Charge
1	Commodities on banks' balance sheet for sale	Total acquisition cost to the banks for the purchase of commodities, less the market value of the commodities as collateral, subject to any haircut and specific provisions.	Not applicable*
2	Commodities sold and delivered to the customer	Based on counterparty's rating or 100% RW for unrated customer.	Not applicable

*In the presence of a binding promise from the counterparty to purchase, and legally enforceable contract documentation, there will be no capital charge.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.1 Introduction

CA-4.1.1 Credit risk exposures in Islamic financing arise in connection with accounts receivable in Murabaha contracts, counterparty risk in Salam contracts, accounts receivable and counterparty risk in Istisna'a contracts and lease payments receivable in Ijarah contracts, and Sukuk held to maturity in the banking book. Credit risk is measured according to the Standardised Approach as outlined in this Module, except for certain exposures arising from investments by means of Musharaka or Mudaraba contracts in assets in the banking book. The latter are to be treated as giving rise to credit risk (in the form of capital impairment risk), and are to be **treated** as detailed in Chapter CA-3.

CA-4.1.2 Broadly, the assignment of Risk Weights (RWs) takes into consideration the following:

- (a) The credit risk rating of an obligor or other counterparty, or a security, based on external credit assessment institutions (ECAI) ratings²¹. In determining the risk weights in the standardised approach, Islamic bank licensees must use assessments by only those external credit assessment institutions which are recognised as eligible for capital purposes by CBB in accordance with the criteria defined in Section CA-4.6;
- (b) Credit risk mitigation techniques adopted by the Islamic bank licensees;
- (c) Types of the underlying assets that are sold and collateralised or leased by the Islamic bank licensees; and
- (d) The amount of specific provisions made for the overdue portion of accounts receivable or lease payments receivable.

CA-4.1.3

Exposures must be risk-weighted net of specific provisions and may take eligible collateral into account where the risk weight of the collateral is lower than that of the counterparty or obligor.

²¹ The notations follow the methodology used by one institution, Standard & Poor's. The use of Standard & Poor's credit ratings is an example only; those of some other external credit assessment institutions could equally well be used. The ratings used throughout this document, therefore, do not express any preferences or determinations on external assessment institutions by the CBB.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.2 Segregation of Claims

Claims on Sovereigns

CA-4.2.1

Claims on governments of GCC member states (hereinafter referred to as GCC) and their central banks **can be** risk weighted at 0%. Claims on other sovereigns and their central banks are given a preferential risk weighting of 0% where such claims are denominated and funded in the relevant domestic currency of that sovereign/central bank (e.g. if a Bahraini bank has a claim on government of Australia and the loan is denominated and funded in Australian dollar, it will be risk weighted at 0%). Such preferential risk weight for claims on GCC/other sovereigns and their central banks are allowed only if the relevant supervisor also allows 0% risk weighting to claims on its sovereign and central bank.

CA-4.2.2

Claims on sovereigns other than those referred to in Paragraph CA-4.2.1 must be assigned risk weights as follows:

External Rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk Weight	0%	20%	50%	100%	150%	100%

Claims on International Organisations

CA-4.2.3

Claims on the Bank for International Settlements, the International Monetary Fund and the European Central Bank receive a 0% risk weight.



MODULE	CA:	Capital Adequacy
CHAPTER	CA-4:	Credit Risk – The Standardised Approach

CA-4.2 Segregation of Claims (continued)

Claims on Non-central Government Public Sectors Entities (PSEs)

CA-4.2.4

Any claims on the Bahraini PSEs listed in Appendix CA-8 are treated as claims on the government of Bahrain and are eligible for 0% risk weighting.

CA-4.2.4A

In addition to the Bahraini PSEs listed in Appendix CA-8, existing exposures to the following entities which have been removed from the list of PSEs as of 1st March 2016, will be grandfathered and will remain eligible for 0% risk weighting until the final maturity or sale of such exposure:

- (a) Durrat Khaleej Al Bahrain Company;
- (b) Hawar Island Development Company;
- (c) Lulu Tourism Company; and
- (d) Al Awali Real Estate Company.

CA-4.2.4B

Any new claims to the entities listed under Paragraph CA-4.2.4A are subject to the normal risk weights as outlined in this Section.

CA-4.2.5

Where other supervisors also treat claims on named PSEs as claims on their sovereigns, claims to those PSEs are treated as claims on the respective sovereigns as outlined in Paragraphs CA-4.2.1 and CA-4.2.2. These PSEs must be shown on a list maintained by the concerned central bank or financial regulator. Where PSE's are not on such a list, they must be subject to the treatment outlined in Paragraph CA-4.2.6.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.2 Segregation of Claims (continued)

CA-4.2.6

Claims on all other (foreign) PSEs (i.e. not having sovereign treatment) denominated and funded in the home currency of the sovereign must be risk weighted as allowed by their home country supervisors, provided the sovereign carries rating BBB- or above. Claims on PSEs with no explicit home country weighting or to PSEs in countries of BB+ sovereign rating and below are subject to ECAI ratings as per the following table:

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk Weight	20%	50%	100%	100%	150%	100%

CA-4.2.7

Claims on commercial companies owned by governments must be risk weighted as normal commercial entities unless they are in the domestic currency and covered by a government guarantee in the domestic currency that satisfies the conditions in Section CA-4.7 in which case they may take the risk weight of the concerned government.

Claims on Multilateral Development Banks (MDBs)

CA-4.2.8

MDBs currently eligible for a 0% risk weight are: the World Bank Group comprised of the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC), the Asian Development Bank (ADB), the African Development Bank (AfDB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IADB), the European Investment Bank (EIB), the European Investment Fund (EIF), the Nordic Investment Bank (NIB), the Caribbean Development Bank (CDB), the Islamic Development Bank (IDB) and the Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), Arab Monetary Fund (AMF), the Council of Europe Development Bank (CEDB), the Arab Bank for Economic Development in Africa (ABEDA), Council of European Resettlement Fund (CERF) and the Kuwait Fund for Arab Economic Development (KFAED).



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.2 Segregation of Claims (continued)

CA-4.2.9 The claims on MDBs, which do not qualify for the 0% risk weighting above, must be assigned risk weights as follows:

External Rating of Counterparty	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Un-rated
Risk weights	20%	30%	50%	100%	150%	50%

Claims on Islamic Banks and Conventional Banks

CA-4.2.10 Claims on banks that are rated must be risk weighted as given in the following table. Exposure to AT1 instruments and T2 instruments classified as equity for accounting purposes, issued by other banks must be treated as exposure to capital instruments under Paragraph CA-4.2.24.

External rating of counterparty	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-
Base risk weights	20%	30%	50%	100%	150%
Risk weight for short-term exposures	20%	20%	20%	50%	150%

Banks must perform due diligence to ensure that the external ratings appropriately and conservatively reflect the creditworthiness of the bank counterparties. If the due diligence analysis reflects higher risk characteristics than that implied by the external rating bucket of the exposure (i.e. AAA to AA–; A+ to A– etc), the bank must assign a risk weight at least one bucket higher than the "base" risk weight determined by the external rating. Due diligence analysis must never result in the application of a lower risk weight than that determined by the external rating.

The ratings for the purposes of risk weighting must not incorporate assumptions of implicit government support, unless the rating refers to a public bank owned by government¹⁴; however, the CBB will allow banks to use external ratings which incorporate assumptions of implicit government support for a period up to 31 December 2031 when assigning the "base" risk weights in the table above to their bank exposures.

¹⁴ Implicit government support refers to the notion that the government would act to prevent bank creditors from incurring losses in the event of a bank default or bank distress.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.2 Segregation of Claims (continued)

CA-4.2.10A Islamic bank licensees must apply risk weights, assessed annually, for unrated banks in accordance with the Standardised Credit Assessment Approach (SCRA) which requires banks to classify the exposures into one of three risk-weight buckets (i.e. graded, A, B and C) and assign risk weights in accordance with the table below:

Credit risk assessment	Grade A	Grade B	Grade C
Base risk weight	40%	75%	150%
Risk weight for short-term exposures	20%	50%	150%
Risk weight for Grade A unrated banks that have Common Equity Tier 1 ratios of 14% or above and a Tier 1 leverage ratio which meets or exceeds 5%.	30%		

- (a) Grade A refers to exposures to banks, where the counterparty bank has adequate capacity to meet their financial commitments (including repayments of principal and profit) in a timely manner, for the projected life of the assets or exposures and irrespective of the economic cycles and business conditions. A counterparty bank classified into Grade A must meet or exceed the published minimum regulatory requirements and buffers established by its national supervisor as implemented in the jurisdiction where it is incorporated, except for bank-specific minimum regulatory requirements or buffers that may be imposed through supervisory actions (e.g. via the Supervisory Review Process, SRP) and not made public. If such minimum regulatory requirements and buffers (other than bank-specific minimum requirements or buffers) are not publicly disclosed or otherwise made available by the counterparty bank, then the counterparty bank must be assessed as Grade B or lower.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.2 Segregation of Claims (continued)

- (b) Grade B refers to exposures to banks, where the counterparty bank is subject to substantial credit risk, such as repayment capacities that are dependent on stable or favourable economic or business conditions. A counterparty bank classified into Grade B must meet or exceed the published minimum regulatory requirements (excluding buffers) established by its national supervisor as implemented in the jurisdiction where it is incorporated, except for bank-specific minimum regulatory requirements that may be imposed through supervisory actions (e.g. via the Supervisory Review Process, SRP) and not made public. If such minimum regulatory requirements are not publicly disclosed or otherwise made available by the counterparty bank then the counterparty bank must be assessed as Grade C.
- (c) Grade C refers to higher credit risk exposures to banks, where the counterparty bank has material default risks and limited margins of safety. For these counterparties, adverse business, financial, or economic conditions are very likely to lead, or have led, to an inability to meet their financial commitments. At a minimum, if any of the following triggers is breached, a bank must classify the exposure into Grade C:
- The counterparty bank does not meet or exceed the published minimum regulatory capital requirements and buffers established by its national supervisor as implemented in the jurisdiction where it is incorporated.
 - Where audited financial statements are required, the external auditor has issued an adverse audit opinion or has expressed substantial doubt about the counterparty bank's ability to continue as a going concern in its financial statements or audited reports within the previous 12 months.
- (d) No claim on an unrated bank may receive a risk weight lower than that applied to claims on its sovereign of incorporation with the exception of short-term self-liquidating, trade-related contingent items that arise from the movement of goods (see Paragraph CA4.5.5).



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CA-4.2 Segregation of Claims (continued)

CA-4.2.11 Short-term claims on locally incorporated banks must be assigned a risk weighting of 20% where such claims on the banks are of an original maturity of 3 months or less denominated and funded in either BD or US\$. A preferential risk weight that is one category more favourable than the standard risk weighting must be assigned to claims on foreign banks licensed in Bahrain of an original maturity of 3 months or less denominated and funded in the relevant domestic currency (other than claims on banks that are rated below B-). Such preferential risk weight for short-term claims on banks licensed in other jurisdictions will be allowed only if the relevant supervisor also allows this preferential risk weighting to short-term claims on its banks. Exposures to banks that arise from the movement of goods across national borders with an original maturity of six months or less can also be assigned risk-weights for short-term claims in accordance with Paragraphs CA-4.2.10 and CA-4.2.10A.

CA-4.2.11A [This Paragraph was deleted in XX 2026].

CA-4.2.12 Claims with **a** (contractual) original maturity under 3 months that are expected to be rolled over (i.e. where the effective maturity is longer than 3 months) do not qualify for risk weights for short-term claims for capital adequacy purposes.

Claims on Investment Firms

CA-4.2.13 Claims on investment firms which are licensed by the CBB are treated as claims on banks for risk weighting purposes but without the use of preferential risk weight for short-term claims specified in CA-4.2.12. Claims on investment firms in other jurisdictions will be treated as claims on corporates for risk weighting purposes. However, if the bank can demonstrate that the concerned investment firm is subject to a capital adequacy and liquidity regime equivalent to those applied to banks, then claims on such investment firms must be treated as claims on banks.



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CA-4.2 Segregation of Claims (continued)

Claims on Corporates, including Insurance Companies

CA-4.2.14 Risk weighting for corporates (other than micro, small and medium enterprises (MSMEs) referred to in CA-4.2.17 and CA-4.2.18) but including insurance companies is as follows:

External Rating of Counterparty	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	Below BB-	Unrated
Risk weight	20%	50%	75%	100%	150%	100%

CA-4.2.15 Risk weighting for unrated (corporate) claims will not be given a preferential RW to the concerned sovereign. Credit facilities to MSMEs may be placed in the regulatory retail portfolio in limited cases in accordance with Paragraphs CA-4.2.17 and CA-4.2.18.

Claims under Specialised Financing

CA-4.2.15A A corporate exposure must be treated as a specialised financing exposure if such financing possesses some or all of the following characteristics, either in legal form or economic substance:

- The exposure is not related to real estate (i.e. exposures other than those referred to in CA-4.2.19C and CA-4.2.20,) and is within the definitions of object finance, project finance or commodities finance;
- The exposure is typically to an entity (often a special purpose vehicle) that was created specifically to finance and/or operate physical assets;
- The counterparty has few or no other material assets or activities, and, therefore, little or no independent capacity to repay the obligation, apart from the income that it receives from the asset(s) being financed. The primary source of repayment of the obligation is the income generated by the asset(s), rather than the independent capacity of the borrowing entity; and
- The terms of the obligation give the counterparty a substantial degree of control over the asset(s) and the income that it generates.



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CA-4.2 Segregation of Claims (continued)

Claims under Specialised Financing

CA-4.2.15B Specialised financing exposures must be classified in one of the following three subcategories:

- (a) Project finance refers to the method of funding in which the bank looks primarily to the revenues generated by a single project, both as the source of repayment and as security for the financing. This type of financing is usually for large, complex and expensive installations such as power plants, chemical processing plants, mines, transportation infrastructure, environment, media, and telecoms. Project finance may take the form of financing the construction of a new capital installation, or refinancing of an existing installation, with or without improvements.
- (b) Object finance refers to the method of funding the acquisition of equipment (e.g. ships, aircraft, satellites, railcars, and fleets) where the repayment of the financing is dependent on the cash flows generated by the specific assets that have been financed and pledged or assigned to the lender.
- (c) Commodities finance refers to short-term financing to finance reserves, inventories, or receivables of exchange-traded commodities (e.g. crude oil, metals, or crops), where the loan will be repaid from the proceeds of the sale of the commodity and the borrower has no independent capacity to repay the exposure.

Issue-specific ratings

CA-4.2.15C Where issue-specific external ratings are available for their specialised financing exposures, they must assign risk weights determined by the issue-specific external ratings according to CA-4.2.14. Issuer ratings must not be used.



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CA-4.2 Segregation of Claims (continued)

Issue-specific ratings not available

CA-4.2.15D For specialised financing exposures for which an issue-specific external rating is not available, the following risk weights must apply:

Project finance exposure	Risk Weight
Object and commodities finance exposures	100%
Exposures during the pre-operational phase	130%
High-quality exposures described in paragraph CA-4.2.15E during operational phase	80%
Other exposures during operational phase	100%

For this purpose, operational phase is defined as the phase in which the entity that was specifically created to finance the project has (i) a positive net cash flow that is sufficient to cover any remaining contractual obligation, and (ii) declining long term financing.

CA-4.2.15E A high quality project finance exposure refers to an exposure to a project finance entity that is able to meet its financial commitments in a timely manner and its ability to do so is assessed to be robust against adverse changes in the economic cycle and business conditions. The following conditions must also be met:

- (a) The project finance entity is restricted from acting to the detriment of the financiers (e.g. by not being able to secure additional financing without the consent of existing financiers);
- (b) The project finance entity has sufficient reserve funds or other financial arrangements to cover the contingency funding and working capital requirements of the project;
- (c) The revenues are availability-based¹⁵ or subject to a rate-of-return regulation or take-or-pay contract;
- (d) The project finance entity's revenue depends on one main counterparty, which shall be a central government, PSE or a corporate entity with a risk weight of 80% or lower;
- (e) The contractual provisions governing the exposure to the project finance entity provide for a high degree of protection for financiers in case of a default of the project finance entity by pledging the assets of the project to the financiers;

¹⁵ Availability-based mean that once construction is completed, the project finance entity is entitled to payments from its contractual counterparties (e.g. the government), as long as contract conditions are fulfilled.)



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CA-4.2 Segregation of Claims (continued)

Issue-specific ratings not available (continued)

- (f) The main counterparty or other counterparties which similarly comply with the eligibility criteria for the main counterparty will protect the creditors from the losses resulting from a termination of the project;
- (g) All assets and contracts necessary to operate the project have been pledged to the creditors to the extent permitted by applicable law; and
- (h) Financiers have the right to assume control of the project finance entity in case of its default.

Claims Included in the Regulatory Retail Portfolios

CA-4.2.16

The RW of a debtor, counterparty or other obligor is adjusted if the underlying assets are retail or real estate financed under Murabaha, Ijara, IMB, Istisna' or diminishing Musharakah, as set out in Paragraphs CA-4.2.17 to CA-4.2.20.



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CA-4.2 Segregation of Claims (continued)

CA-4.2.17

Retail claims that are included in the regulatory retail portfolio (which include exposures to an individual person and exposure to MSMEs) must meet the criteria included in CA-4.2.18 and must be risk weighted as per the risk weights in the table below, except as provided in Paragraph CA-4.2.21 for the past due receivables.

Type	Risk Weight
Regulatory retail exposures that do not arise from exposures to transactors but meet the criteria under CA-4.2.18 (see definition in CA4.2.18A)	75%
Regulatory retail exposures that meet the criteria under CA-4.2.18 and those arising from exposures to transactors (see definition in CA4.2.18A)	45%
Other retail exposures to individuals that do not meet the criteria in CA-4.2.18	100%
MSME exposures that do not meet the criteria under CA-4.2.18	85%

CA- 4.2.18

To be included in the regulatory retail portfolio, claims must meet the following criteria:

- Orientation — the exposure is to an individual person or to an MSMEs.
- Product — The exposure takes the form of any of the following: revolving credits and lines of credit (including credit cards and running finance), personal term finance and leases (e.g. instalment finance, auto finance and leases, student and educational finance, personal finance) and MSME facilities and commitments. Islamic products which involve securities (such as Musharakah, Mudarabah, Sukuks and equities), whether listed or not, are specifically excluded from this category. Mortgage finance will be excluded if they qualify for treatment as claims secured by residential property (see below). Finance for purchase of shares are also excluded from the regulatory retail portfolios;
- Granularity — The regulatory retail portfolio is sufficiently diversified to a degree that it reduces the risks in the portfolio. No aggregate exposure to one counterpart²⁴ can exceed 0.2% of the overall regulatory retail portfolio; and

²⁴ Aggregated exposure means gross amount (i.e. not taking any credit risk mitigation into account) of all forms of retail exposures (e.g. finances or commitments) that individually satisfy the three other criteria excluding residential real estate exposures. In case of off-balance sheet claims, the gross amount would be calculated after applying credit conversion factors. In addition, “to one counterpart” means one or several entities that may be



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CA-4.2 Segregation of Claims (continued)

- (d) The aggregate receivables (accounts receivable in Murabaha and Istisna, lease payments receivable in IMB, and share purchase plus lease receivables in diminishing Musharakah) due from a single counterparty or person(s) must not exceed **BD500,000**.

CA- 4.2.18A “Transactors” are obligors in relation to facilities such as credit cards where the balance has been repaid in full at each scheduled repayment date for the previous 12 months. Obligors in relation to Shari’ah-compliant retail financing facilities would also be considered as transactors if there have been no drawdowns over the previous 12 months.

Regulatory residential real estate not materially dependent on cash flows generated by the property

CA-4.2.19 Financing facilities secured by mortgages on residential property that meet the criteria under CA-4.2.19A must be risk weighted based on the table below. This approach is only available for exposures which are not materially dependent²⁵ on cash flows generated by the property and for which FTVs (financing to values, i.e. the amount²⁶ of the loan including undrawn commitment divided by the value of the property) are available.

Residential property	Risk Weights					
	FTV ≤ 50%	50% < FTV ≤ 60%	60% < FTV ≤ 80%	80% < FTV ≤ 90%	90% < FTV ≤ 100%	FTV > 100%
Exposure to individuals	20%	25%	30%	40%	50%	70%

considered as a single beneficiary (e.g. in the case of a **MSME** that is affiliated to another **MSME**, the limit would apply to the bank’s aggregated exposure on both businesses).

²⁵ Exposures are materially dependent on cash flows generated when the prospects for servicing the loan materially depend on the cash flows generated by the property securing the loan rather than on the underlying capacity of the borrower to service the debt from other sources. A loan may be considered materially dependent if more than 50% of the income from the borrower used in the bank’s assessment of its ability to service the loan is from cash flows generated by the residential property.

²⁶ The loan amount must be calculated gross of any provisions and other risk mitigants, except for pledged deposits accounts with the lending bank that meet all requirements for on-balance sheet netting and have been unconditionally and irrevocably pledged for the sole purposes of redemption of the mortgage loan.

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CA-4.2 Segregation of Claims (continued)

However, a licensee may risk weight an exposure at 35% if the exposure is fully secured by a first mortgage. In the case of exposures with multiple liens or charges¹⁹ on the property not held by the bank, the part of the exposure, up to 55% of the property value after reducing the amount of the senior charge not held by the bank and by a pro-rata percentage of any charges held pari passu with other banks will be risk weighted at 20% and the remaining exposure RW as per CA-4.2.20B.

CA-4.2.19A

The exposure secured by RRE property must meet all of the criteria below:

- (a) Finished property: the exposure must be secured by a fully completed immovable property. Financings to individuals that are secured by residential property under construction or land upon which residential property would be constructed, provided that:
 - i. The property is a one-to-four family residential housing unit that will be the primary residence of the counterparty and the financing to the individual is not, in effect, indirectly financing land acquisition, development and construction exposures described (See CA-4.2.20A) or
 - ii. Sovereign or PSEs involved have the legal powers and ability to ensure that the property under construction will be finished;
- (b) The residential property must be pledged as a collateral to the Islamic bank licensee;
- (c) There exists a legal infrastructure in the jurisdiction whereby the Islamic bank licensee can enforce the repossession and liquidation of the residential property; and
- (d) The Islamic bank licensee must obtain a satisfactory legal opinion that foreclosure or repossession as mentioned in (c) above is possible without any impediment.

CA-4.2.19B

The RW for residential mortgage exposure granted under the Social Housing Schemes of the Kingdom of Bahrain may be further reduced to 25% subject to meeting conditions, (a) and (b) in CA-4.2.19A. The reduced risk weight is subject to ensuring the compliance with the requirements for timely recognition of expected credit loss (ECL) as per the Credit Risk Management Module (Module CM).

¹⁹ For properties with multiple liens/charges, Banks can adopt "Loan Splitting Approach" described in Annex 3.

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CA-4.2 Segregation of Claims (continued)

Regulatory residential real estate materially dependent on cash flows generated by the property

CA-4.2.19C The exposures, whether to individuals or legal persons, secured by fully finished residential real estate property (i.e. finished immovable property other than borrower's primary residence), which are materially dependent on cash flows generated by the property must be risk weighted based on the related FTV (financing to values, i.e. the amount of the loan including undrawn commitment divided by the value of the property) as follows:

	Risk weights					
Residential property	FTV ≤ 50%	50% < FTV ≤ 60%	60% < FTV ≤ 80%	80% < FTV ≤ 90%	90% < FTV ≤ 100%	FTV > 100%
Exposures that are materially dependent on cash flows generated by the property	30%	35%	45%	60%	75%	105%

CA-4.2.19D For unhedged retail and residential real estate exposures to individuals where the financing currency differs from the currency of the recipient of financing's source of income, banks must apply a 1.5 times multiplier to the applicable risk weight subject to a maximum risk weight of 150%. US dollar denominated exposures in the GCC where the US Dollar is pegged to the local currency are exempted from the application of this multiplier. An unhedged exposure refers to an exposure to a borrower that has no natural or financial hedge against the foreign exchange risk resulting from the currency mismatch between the currency of the borrower's income and the currency of the loan. A natural hedge exists where the borrower, in its normal operating procedures, receives foreign currency income that matches the currency of a given loan (e.g. remittances, rental incomes, salaries). A financial hedge generally includes a legal contract with a financial institution (e.g. forward contract). For the purposes of application of the multiplier, only those natural or financial hedges are considered sufficient where they cover at least 90% of the loan instalment, regardless of the number of hedges.



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CA-4.2 Segregation of Claims (continued)

Regulatory Commercial Real Estate

CA-4.2.20

Financing facilities fully secured by mortgages on finished commercial real estate property are subject to the following risk weights using financing splitting approach based on the related FTVs (Financing to values, i.e. the amount of the financing including undrawn commitment divided by the value of the property). ~~but may be subject to higher risk weights depending on the financing structure (see CA-3).~~

Exposure type	FTV ranges and risk weights		
	FTV ≤ 60%	60% < FTV ≤ 80%	FTV > 80%
Exposures secured by a first mortgage charge that are not materially dependent on cash flows generated by the property.	60% on 55% of the value of the property and RW as per CA4.2.20B on the remaining exposure	RW of the borrower	
Exposures where there are mortgage charges on the property not held by the bank.	Part of the exposure up to 55% of the property value after reducing the amount of the senior charge not held by the bank and by a pro-rata percentage of any charges held pari-passu with other banks RW of 60% and the remaining exposure at RW as per CA4.2.20B.		
Exposures that are materially dependent on cash flows generated by the property	70%	90%	110%



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CA-4.2 Segregation of Claims (continued)

Claims Secured by Land Acquisition, Development and Construction (ADC) exposures

CA-4.2.20A Exposures to companies or SPVs representing financing any of the land acquisition for development and construction purposes (ADC) for any residential or commercial property must be risk-weighted at 150%. ADC exposures to residential real estate projects may, however, be risk weighted at 100% provided that the following criteria are met:

- (a) The exposure is secured by a first mortgage;
- (b) There exists a legal infrastructure in the jurisdiction whereby the licensee can enforce the repossession and liquidation of the property;
- (c) The property is subject to prudent valuation;
- (d) At least one of the following conditions are met:
 - i. Legally binding pre-sale or pre-lease contracts for the sale or lease of the relevant land or residential real estate have been signed, for which the purchaser or tenant has made a substantial cash deposit (not less than 20% of the value of the exposure) which is subject to forfeiture if the contract is terminated, or
 - ii. when the borrower has substantial equity at risk (50% or more) in the ADC project.

Exposures Secured by Other Real Estate

CA-4.2.20B Exposure secured by other real estate is an exposure that does not fall under Paragraphs CA-4.2.19 to CA-4.2.20A. Such exposures must be risk-weighted as follows:

	Individual	MSME	Other counterparties
Not materially dependent on the cash flows generated by the property	75%	85%	The risk weight that would be assigned to an unsecured exposure to that counterparty
Materially dependent on the cash flows generated by the property	150%		



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CA-4.2 Segregation of Claims (continued)

CA-4.2.20C Mortgage takaful²⁰ may be recognised as an eligible CRM in relation to exposures secured by real estate if it meets the operational requirements of the credit risk mitigation framework for a guarantee in Chapter CA-4.7. The FTV bucket and risk weight to be applied to the exposure amount must be determined before the application of the CRM.

CA-4.2.20D Where a bank grants different financings secured by the same property and they are sequential in ranking order (i.e. there is no intermediate lien from another bank), the different financings must be considered as a single exposure for risk-weighting purposes, and the amount of the loans should be added to calculate the FTV.

Non-Performing Exposures (Stage 3 Exposures)

CA-4.2.21 In the event that accounts receivable or lease payments receivable become 90 days past due, the exposure must be risk-weighted, net of specific provisions, in accordance with the following table:

Type	RW	% of Specific Provisions for Past Due Receivables
Unsecured exposure (other than a qualifying residential mortgage finance facility) that is 90 days or more past due, net of specific provisions	150%	Less than 20% of the outstanding receivables.
Exposure secured by RRE	100%	At least 20% of the outstanding receivables.
Exposure secured by RRE	100%	For receivables that are 90 days or more past due.

²⁰ A bank's use of mortgage takaful should mirror the FSB Principles for sound residential mortgage underwriting (April 2012).

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CA-4.2 Segregation of Claims (continued)

CA-4.2.22 For the purposes of defining the secured portion of a past due receivable, eligible collateral and guarantees will be the same as for credit risk mitigation purposes.

CA-4.2.23 **Non-performing** retail receivables are to be excluded from the overall regulatory retail portfolio when assessing the granularity criterion, for risk-weighting purposes.

Subordinated debt, Equity and other Capital Instruments

CA-4.2.24 Exposures to subordinated debt, equity and other capital instruments must be risk weighted as follows:

- (a) 250% for listed equity exposures²¹;
- (b) 400% for unlisted equity exposures²²;
- (c) 250% for all other equity holdings²³ other than:
 - a. for significant investments in the common shares of unconsolidated financial entities, mortgage Servicing Rights and Deferred Tax Assets arising from temporary differences if they have already been deducted as required or treated in accordance with Paragraphs CA-2.4.15 to CA2.4.24; and
 - b. for significant investments in commercial entities that are above 15% of capital and above 60% of capital in aggregate treated in accordance with CA-2.4.25;
- (d) 150% for subordinated debt and capital instruments other than equities unless they have already been deducted from CET1 as required by Paragraphs CA-2.4.15 to CA-2.4.24.

²¹ Banks will apply the risk weights on listed equity exposures in the banking book in a phased manner: i.e. risk weights 2027: 170%, 2028: 190%, 2029: 210%, 2030: 230% and 2031: 250%.

²² Unlisted equity exposures are defined as equity investments in unlisted companies that are invested for short-term for resale purposes or are considered venture capital or similar investments. Banks will apply the risk weights in a phased manner: i.e. risk weights 2027: 200%, 2028: 250%, 2029: 300%, 2030: 350% and 2031: 400%.

²³ Banks will apply the risk weights in a phased manner: i.e. risk weights 2027: 170%, 2028: 190%, 2029: 210%, 2030: 230% and 2031: 250%.



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CA-4.2 Segregation of Claims (continued)

CA-4.2.24A

Equity exposures for the purposes of the Paragraph CA-4.2.24 are defined on the basis of the economic substance of the instrument. They include both direct and indirect ownership interests²⁴, whether voting or non-voting, in the assets and income of a commercial enterprise or of a financial institution that is not consolidated or deducted. An instrument is considered to be an equity exposure if it meets all of the following requirements:

- (a) It is irredeemable in the sense that the return of invested funds can be achieved only by the sale of the investment or sale of the rights to the investment or by the liquidation of the issuer;
- (b) It does not embody an obligation on the part of the issuer; and
- (c) It conveys a residual claim on the assets or income of the issuer.
- (d) Additionally, any of the following instruments must be categorised as an equity exposure:
 - (i) An instrument with the same structure as those permitted as Tier 1 capital for banking organisations.
 - (ii) An instrument that embodies an obligation on the part of the issuer and meets any of the following conditions:
 - (1) The issuer may defer indefinitely the settlement of the obligation;
 - (2) The obligation requires (or permits at the issuer's discretion) settlement by issuance of a fixed number of the issuer's equity shares;
 - (3) The obligation requires (or permits at the issuer's discretion) settlement by issuance of a variable number of the issuer's equity shares and (ceteris paribus) any change in the value of the obligation is attributable to, comparable to, and in the same direction as, the change in the value of a fixed number of the issuer's equity shares²⁵; or,

²⁴ Indirect equity interests include holdings of Shari'a compliant hedging instruments tied to equity interests, and holdings in corporations, partnerships, limited liability companies or other types of enterprises that issue ownership interests and are engaged principally in the business of investing in equity instruments.

²⁵ For certain obligations that require or permit settlement by issuance of a variable number of the issuer's equity shares, the change in the monetary value of the obligation is equal to the change in the fair value of a fixed number of equity shares multiplied by a specified factor. Those obligations meet the conditions of this instrument if both the factor and the referenced number of shares are fixed. For example, an issuer may be required to settle an obligation by issuing shares with a value equal to three times the appreciation in the fair value of 1,000 equity shares. That obligation is considered to be the same as an obligation that requires settlement by issuance of shares equal to the appreciation in the fair value of 3,000 equity shares. 14 Equities that are recorded as a loan but arise from a debt/equity swap made as part of the orderly realisation or restructuring of the debt are included in the definition of equity holdings. However, these instruments may not attract a lower capital charge than would apply if the holdings remained in the debt portfolio.

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CA-4.2 Segregation of Claims (continued)

(4) The holder has the option to require that the obligation be settled in equity shares, unless either (i) in the case of a traded instrument, the supervisor is content that the bank has demonstrated that the instrument trades more like the debt of the issuer than like its equity, or (ii) in the case of non-traded instruments, the supervisor is content that the bank has demonstrated that the instrument should be treated as a debt position. In cases (i) and (ii), the bank may decompose the risks for regulatory purposes, with the consent of the CBB.

CA-4.2.24B Debt obligations and other securities, partnerships, Shari'a compliant hedging instruments or other vehicles structured with the intent of conveying the economic substance of equity ownership must be considered as an equity holding²⁶. This includes liabilities from which the return is linked to that of equities. Conversely, equity investments that are structured with the intent of conveying the economic substance of debt holdings or securitisation exposures must not be considered as an equity holding.

CA-4.2.24C Banks must assign a risk weight of 150% to subordinated debt and capital instruments other than equities.

Equity investments in funds

CA-4.2.25 Equity Investments in Funds (e.g. mutual funds, Collective Investment Undertakings etc.) 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). (See also CM Module and CA-4.2.25J for exclusions and exemptions from LTA/MBA/FBA requirements).

²⁶ Equities that are recorded as a loan but arise from a debt/equity swap made as part of the orderly realisation or restructuring of the debt are included in the definition of equity holdings. However, these instruments may not attract a lower capital charge than would apply if the holdings remained in the debt portfolio.

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CA-4.2 Segregation of Claims (continued)

The look-through approach (“LTA”)

CA-4.2.25A Under the LTA Islamic banks must 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:

- (a) There is sufficient and frequent information provided to the bank regarding the underlying exposures of the fund; and
- (b) Such information is verified by an independent third party.

CA-4.2.25B To satisfy condition (a) in paragraph CA-4.2.25A, 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 weights²⁷. To satisfy condition (b) in paragraph CA-4.2.25A, 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.

CA-4.2.25C 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 Shari’a compliant hedging activities (for situations in which the underlying receives a risk weighting treatment under this rulebook) and the associated counterparty credit risk (CCR) exposure. Banks must multiply the CCR exposure by a factor of 1.5 before applying the risk weight associated with the counterparty²⁸. See Annex 1 for an example of how to calculate risk-weighted assets using the LTA.

CA-4.2.25D Banks may rely on third-party calculations for determining the risk weights associated with their equity investments in funds (i.e. 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 bank²⁹.

²⁷ An external audit is not required.

²⁸ A bank is not required to apply the 1.5 factor for situations in which the CVA capital charge would not otherwise be applicable. This includes: (i) transactions with a central counterparty and (ii) securities financing transactions (SFTs), unless the CBB determines that the bank’s CVA loss exposure arising from SFTs are material.

²⁹ 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.



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CA-4.2 Segregation of Claims (continued)

The mandate-based approach (“MBA”)

CA-4.2.25E The second approach, the MBA, must be used by banks for calculating regulatory capital when the conditions for applying the LTA are not met.

CA-4.2.25F Under the MBA, banks may use the information contained in a fund’s mandate governing such investment funds³⁰. 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:

- (a) Balance sheet exposures (i.e. the Islamic collective investment scheme assets) are risk weighted assuming the underlying portfolios are invested to the maximum extent allowed under the Islamic collective investment scheme 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 used³¹.
- (b) Whenever the underlying risk of a hedging exposure or an off balance-sheet item receives a risk weighting treatment under Pillar 1, the notional amount of the hedging position or of the off-balance sheet exposure is risk weighted accordingly^{32,33}.
- (c) The CCR associated with the Islamic collective investment scheme hedging exposure is calculated using the Standardised Approach for Counterparty Credit Risk (SA-CCR) set out in Chapter CA-4A. SA-CCR calculates the counterparty credit risk exposure of a netting set of Shari’a compliant hedging instruments 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 Shari’a compliant hedging instruments 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 Shari’a compliant hedging instruments in the netting set.

³⁰ For instance, for investments in corporate bonds with no ratings restrictions, a risk weight of 150% must be applied.

³¹ If the underlying is unknown, the full notional amount of Shari’a compliant hedging instruments positions must be used for the calculation.

³² If the underlying is unknown, the full notional amount of hedging contract positions must be used for the calculation.

³³ If the notional amount of the hedging contract positions mentioned in paragraph CA-4.2.25D is unknown, it will be estimated conservatively using the maximum notional amount of hedging contract allowed under the MBA.

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CA-4.2 Segregation of Claims (continued)

The risk weight associated with the counterparty is applied to the counterparty credit risk exposure. Banks must multiply the CCR exposure by a factor of 1.5 before applying the risk weight associated with the counterparty. See the Annex 1 for an example of how to calculate risk-weighted assets using the MBA.

The fall-back approach

CA-4.2.25G Where neither the LTA nor the MBA is feasible, banks are required to apply a 800% risk weight to the bank's equity investment in the fund.

Treatment of funds that invest in other funds

CA-4.2.25H When a bank has an investment in a fund (e.g. Fund A) that itself has an investment in another fund (e.g. 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 (i.e. Fund A's investment in Fund B) can be determined by using one of the three approaches set out above. For all subsequent layers (e.g. 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

CA-4.2.25I 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 paragraphs CA-4.2.25A to CA-4.2.25J are met. Exclusions to the look-through, mandate-based and the fall-back approaches CA-3.2.27J 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). Leverage adjustment CA-3.2.27K Leverage is defined as the ratio of total assets to total equity. Leverage is taken into account in the MBA by using the maximum financial leverage permitted in the fund's mandate.

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CA-4.2 Segregation of Claims (continued)

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

CA-4.2.25J 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).

Leverage adjustment

CA-4.2.25K Leverage is defined as the ratio of total assets to total equity. Leverage is taken into account in the MBA by using the maximum financial leverage permitted in the fund's mandate.

CA-4.2.25L 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 paragraph CA-4.2.25M, subject to a cap of 1,250%.

CA-4.2.25M 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:

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

CA-4.2.25N The effect of the leverage adjustments depends on the underlying riskiness of the portfolio (ie the average risk weight) as obtained by applying Basel II's Standardised Approach or the IRB approaches for credit risk. The formula can therefore be re-written as:

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

 See Annex 1 for an example of how to calculate the leverage adjustment.

CA-4.2.26 CBB may require an Islamic bank licensee to adopt the 'Simple Risk Weight Method' for equities if the CBB considers that Islamic bank licensee's equity portfolio is significant.

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CA-4.2 Segregation of Claims (continued)

Large Exposures over the Limits in Module CM

CA-4.2.26A The amount of any large exposures exceeding the limits set in **Module CM** must be weighted at 800% **(Refer to CM Module for relevant requirements).**

Holdings of Real Estate

CA-4.2.27 See Chapter CA-9 for full details. All direct holdings of real estate by Islamic bank licensees (i.e. owned directly by the Islamic bank licensee on balance sheet) must be risk-weighted at 200%. Premises occupied by the Islamic bank licensee must be risk-weighted at 100%. Investments in Real Estate Companies (e.g. by way of investments in the common equity of subsidiaries or associates or other arrangements such as trusts, funds or REITs) must be risk-weighted at 300% or 400% as outlined in Chapter 9 of this Module. Such equity investments will be subject to the materiality thresholds for commercial companies described in Paragraph CA-2.4.25 and therefore any holdings which amount to 15% or more of Total Capital will be subject to a 800% risk weight.

Other Assets

CA-4.2.28 Gold bullion held in own vaults or on an allocated basis to the extent backed by bullion liabilities must be treated as cash and therefore risk-weighted at 0%. In addition, cash items in the process of collection must be risk-weighted at 20%. The standard risk weight for all other assets will be 100%. Investments in regulatory capital instruments issued by banks or investment firms must be risk weighted at a minimum of 100%, unless they are deducted from the regulatory capital according to the corresponding deduction approach in Section CA-2.4 of this Module.

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CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.2 Segregation of Claims (continued)

Underwriting of Non-trading Book Items

CA-4.2.29

Underwritings of capital instruments issued by other banking, financial or insurance entities are covered in Subparagraph CA-2.4.16(c) and CA-2.4.20(c). The large exposures limits of Module CM are also applicable to underwritings i.e. 800% risk weights will apply to underwriting exposures in excess of the limits in Module CM. The risk weights below apply for exposures within the limits. Where an Islamic bank licensee has acquired assets on its balance sheet in the banking book which it is intending to place with third parties under a formal arrangement, the following risk weightings apply for no more than 90 days. Once the underwriting period has expired, the usual risk weights (see CA-4.2.24A, CA-4.2.27) apply.

CA-4.2.30

Netting arrangements between financing assets and deposits will be permitted subject to the satisfaction of conditions in this Paragraph. The net exposure can be used for capital adequacy purposes if the Islamic bank licensee has a legally enforceable arrangement for netting or offsetting the financing assets and the deposits, irrespective of whether the counterparty is insolvent or bankrupt. The Islamic bank licensee must have a robust system of monitoring those financing assets and deposits with the counterparty that is subject to the netting arrangements. In using the net exposure for the calculation of capital adequacy, financing assets must be treated as exposures and deposits as collateral in the comprehensive approach (as per the formula provided in Paragraph CA-4.7.23). A zero haircut is applicable, except in the case of a currency mismatch.

Exposure to Covered Sukuk

CA-4.2.31

Exposure to covered sukuk which means sukuk issued by a bank or mortgage institution that are subject by law to special public supervision designed to protect sukuk holders must be risk weighted in accordance with the table below subject to meeting the criteria in Paragraphs CA-4.2.32 to CA-4.2.33.



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CA-4.2 Segregation of Claims (continued)

Rated covered sukuk

Issue specific rating of the covered sukuk	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ To B-	Below B-
Standard risk weights	10%	20%	20%	50%	100%

Unrated covered sukuk

For unrated covered sukuk, the “base” risk weight would be applied which is inferred from the risk weight of the issuing bank:

Risk weight of the issuing bank	20%	30%	40%	50%	75%	100%	150%
Base risk weight	10%	15%	20%	25%	35%	50%	100%

- CA-4.2.32** Exposures to covered sukuk are eligible for the treatment set out in Paragraph CA-3.2.31, provided that the bank investing in the covered sukuk can demonstrate to the CBB that:
- It receives portfolio information at least on:
 - The value of the cover pool and outstanding covered sukuk;
 - The geographical distribution and type of cover assets, financing size, profit and currency risks;
 - The maturity structure of cover assets and covered sukuk; and
 - The percentage of financings more than 90 days past due;
 - The issuer makes the information referred to in (a) above available to the bank at least semi-annually; and
 - Proceeds deriving from the issue of the covered bonds must be invested in conformity with the relevant law in assets which, during the whole period of the validity of the bonds, are capable of covering claims attached to the bonds and which, in the event of the failure of the issuer, would be used on a priority basis for the reimbursement of the principal and payment of the accrued profit.



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CA-4.2 Segregation of Claims (continued)

CA-4.2.33 In order to be eligible for the risk weights under Paragraph CA-4.2.31, the underlying assets (the cover pool) of the covered sukuk must also meet the following:

- (a) Claims on, or guaranteed by, sovereigns, their central banks, public sector entities or multilateral development banks;
- (b) Claims secured by residential real estate that meet the criteria set out in CA-4.2.34 and with a financing-to-value ratio of 80% or lower at inception of the covered sukuk and throughout its remaining maturity;
- (c) Claims secured by commercial real estate that meets the criteria set out in CA-4.2.34 and with a financing-to-value ratio of 60% or lower; or
- (d) Claims on or guaranteed by banks that qualify for a 30% or lower risk weight. However, such assets cannot exceed 15% of covered sukuk issuances; and
- (e) The nominal value of the pool of assets assigned to the covered sukuk instrument (s) by its issuer should exceed its nominal outstanding value by at least 10%.

CA-4.2.34 For the purposes of CA-4.2.33 (b) and (c) the criteria are as follows:

- (a) Finished property: the exposure must be secured by a fully completed immovable property;
- (b) Legal enforceability: any claim on the property taken must be legally enforceable in all relevant jurisdictions. The collateral agreement and the legal process underpinning it must be such that they provide for the bank to realise the value of the property within a reasonable time frame;
- (c) Claims over the property: the financing is a claim over the property where the bank holds a first lien over the property;
- (d) The bank has performed a due diligence of the ability of the borrower to repay the financing and it meets the debt burden ratios of the CBB for purpose of lending; and
- (e) The bank has undertaken valuation of the collateral in accordance with the requirements of Module CM.

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CA-4.3 Supervisory Slotting Criteria

[This section was deleted in January 2015.]

CONSULTATION

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CA-4.4 Simple Risk Weight Method

[This section was deleted in XX 2026.]



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CA-4.5 Risk Weighting – Off-balance Sheet Items

CA-4.5.1 Off-balance sheet items must be converted into credit exposure equivalents using credit conversion factors (CCFs).

CA-4.5.2 A 40% CCF will be applied to commitments, regardless of the maturity of the underlying facility, unless they qualify for a lower CCF.

CA-4.5.3 Commitments (excluding arrangements listed below which will continue to carry a 0% CCF), that are unconditionally cancellable at any time by the Islamic bank licensee without prior notice, or that are subject to automatic cancellation due to deterioration in a borrowers' creditworthiness, will receive a 10%³⁴ CCF:

- (a) the bank receives no fees or commissions to establish or maintain the arrangements;
- (b) the client is required to apply to the bank for the initial and each subsequent drawdown;
- (c) the bank has full authority, regardless of the fulfilment by the client of the conditions set out in the facility documentation, over the execution of each drawdown; and
- (d) the bank's decision on the execution of each drawdown is only made after assessing the creditworthiness of the client immediately prior to drawdown.

CA-4.5.4 Direct credit substitutes, e.g. general guarantees of indebtedness (including standby letters of credit serving as financial guarantees for finance and securities) and acceptances (including endorsements with the character of acceptances) must be applied a CCF of 100%.

CA-4.5.5 Shari'a compliant sale and repurchase agreements, securitised lending/borrowing and asset sales with recourse³⁵, where the credit risk remains with the Islamic bank licensee, must be applied a CCF of 100%.

CA-4.5.6 A CCF of 100% must be applied to the lending of other banks' securities or the posting of securities as collateral by banks.

CA-4.5.7 Forward asset purchases, forward deposits and partly-paid shares and securities, which represent commitments with certain drawdown and off-and balance sheet items that are credit substitutes not explicitly included in any other category must be applied a CCF of 100%.

³⁴ Banks are allowed time under 31 December 2031 for implementation of this requirement.

³⁵ These items are to be weighted according to the type of asset and not according to the type of counterparty with whom the transaction has been entered into.

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CA-4.5 Risk Weighting – Off-balance Sheet Items

- CA-4.5.8** Certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties and standby letters of credit related to particular transactions) must be applied a CCF of 50%.
- CA-4.5.9** Asset value guarantees (where a bank provides protection on exit price or realisable value of a non-financial asset) must receive CCF of 100%.
- CA-4.5.10** Note issuance facilities and revolving underwriting facilities must be applied a CCF of 50%.
- CA-4.5.11** For short-term self-liquidating trade letters of credit arising from the movement of goods (e.g. documentary credits collateralised by the underlying shipment), a 20% CCF must be applied to both issuing or confirming banks. Short term in this context means with a maturity below one year.
- CA-3.3.12** Where there is an undertaking to provide a commitment on an off-balance sheet item, Islamic bank licensees are to apply the lower of the two applicable CCFs.

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CA-4.5 Risk Weighting – Off-balance Sheet Items (continued)

CA-4.5.12 Islamic bank licensees must closely monitor securities, commodities, and foreign exchange transactions that have failed, starting the first day they fail. A capital charge to failed transactions must be calculated in accordance with CBB guidelines set forth in Appendix CA-4 – ‘Capital treatment for failed trades and non DvP transactions’.

CA-4.5.13 With regard to unsettled securities, commodities, and foreign exchange transactions, Islamic bank licensees are encouraged to develop, implement and improve systems for tracking and monitoring the credit risk exposure arising from unsettled transactions as appropriate for producing management information that facilitates action on a timely basis.



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CA-4.6 External Credit Assessments

The Recognition Process and Eligibility Criteria

- CA-4.6.1 CBB will assess all External Credit Assessment Institutions (ECAI) according to the six criteria below. Any failings, in whole or in part, to satisfy these to the fullest extent will result in the respective ECAI's methodology and associated resultant rating not being accepted by the CBB:
- (a) **Objectivity:** The methodology for assigning credit assessments must be rigorous, systematic, and subject to some form of validation based on historical experience. Moreover, assessments must be subject to ongoing review and responsive to changes in financial condition. Before being recognized by the CBB, an assessment methodology for each market segment, including rigorous back testing, must have been established for an absolute minimum of one year and with a preference of three years;
 - (b) **Independence:** An ECAI must show independence and should not be subject to political or economic pressures that may influence the rating. The assessment process should be as free as possible from any constraints that could arise in situations where the composition of the board of directors, political pressure, the shareholder structure of the assessment institution or any other aspect could be seen as creating a conflict of interest;
 - (c) **International access/Transparency:** The individual assessments, the key elements underlining the assessments and whether the issuer participated in the assessment process should be publicly available on a non-selective basis, unless they are private assessments. In addition, the general procedures, methodologies and assumptions for arriving at assessments used by the ECAI should be publicly available;
 - (d) **Disclosure:** An ECAI should disclose the following information: its code of conduct; the general nature of its compensation arrangements with assessed entities; its assessment methodologies, including the definition of default, the time horizon, and the meaning of each rating; the actual default rates experienced in each assessment category; and the transitions of the assessments, e.g. the likelihood of AA ratings becoming A over time;
 - (e) **Resources:** An ECAI must have sufficient resources to carry out high quality credit assessments. These resources should allow for substantial ongoing contact with senior and operational levels within the entities assessed in order to add value to the credit assessments. Such assessments will be based on methodologies combining qualitative and quantitative approaches; and
 - (f) **Credibility:** Credibility, to a certain extent, can derive from the criteria above. In addition, the reliance on an ECAI's external credit assessments by independent parties (investors, insurers, trading partners) may be evidence of the credibility of the assessments of an ECAI. The credibility of an ECAI will also be based on the existence of internal procedures to prevent the misuse of confidential information. In order to be eligible for recognition, an ECAI does not have to assess firms in more than one country.



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CA-4.6 External Credit Assessments (continued)

CA-4.6.2 The CBB recognises Standard and Poor's, Moody's, Fitch IBCA, Capital Intelligence and the Islamic International Rating Agency as eligible ECAIs. With respect to the possible recognition of other rating agencies as eligible ECAIs, CBB will update this paragraph subject to the rating agencies satisfying the eligibility.

CA-4.6.3 Islamic bank licensees must use the chosen ECAIs and their ratings consistently for each type of claim, for both risk weighting and risk management purposes. Islamic bank licensees will not be allowed to “cherry-pick” the assessments provided by different eligible ECAIs and to arbitrarily change the use of ECAIs.

CA-4.6.4 Islamic bank licensees must disclose in their annual reports the ECAIs that they use for the risk weighting of their assets by type of claims, the risk weights associated with the particular rating grades as determined by the CBB through the mapping process as well as the aggregated risk-weighted assets for each risk weight based on the assessments of each eligible ECAI.

Multiple Assessments

CA-4.6.5 If there are two assessments by eligible ECAIs chosen by an Islamic bank licensee which map into different risk weights, the higher risk weight must be applied.

CA-4.6.6 If there are three or more assessments by eligible ECAIs chosen by an Islamic bank licensee which map into different risk weights, the assessments corresponding to the two lowest risk weights must be referred to and the higher of those two risk weights must be applied.

Issuer Versus Issues Assessment

CA-4.6.7 Where a bank invests in a particular issue that has an issue-specific assessment, the risk weight of the claim will be based on this assessment. Where the bank's claim is not an investment in a specific assessed issue, the following general principles apply:

- In circumstances where the borrower has a specific assessment for an issued debt — but the bank's claim is not an investment in this particular debt — a high quality credit assessment (one which maps into a risk weight lower than that which applies to an unrated claim) on that specific debt may only be applied to the bank's un-assessed claim if this claim ranks pari passu or senior to the claim with an assessment in all respects. If not, the credit assessment cannot be used and the un-assessed claim will receive the risk weight for unrated claims;



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CA-4.6 External Credit Assessments (continued)

(b) In circumstances where the borrower has an issuer assessment, this assessment typically applies to senior unsecured claims on that issuer. Consequently, only senior claims on that issuer will benefit from a high quality issuer assessment. Other un-assessed claims of a highly assessed issuer will be treated as unrated. If either the issuer or a single issue has a low quality assessment (mapping into a risk weight equal to or higher than that which applies to unrated claims), an un-assessed claim on the same counterparty will be assigned the same risk weight as is applicable to the low quality assessment; and

(c) In circumstances where the issuer has a specific high-quality rating (one which maps into a lower risk weight) that only applies to a limited class of liabilities (such as a deposit rating or a counterparty risk rating), this may only be used in respect of exposures that fall within that class.

CA-4.6.8

Whether the Islamic bank licensee intends to rely on an issuer- or an issue-specific assessment, the assessment must take into account and reflect the entire amount of credit risk exposure the Islamic bank licensee has with regard to all payments owed to it.⁴⁴

CA-4.6.9

In order to avoid any double counting of credit enhancement factors, no recognition of credit risk mitigation techniques will be taken into account if the credit enhancement is already reflected in the issue specific rating (see Paragraph CA-4.7.3).

Domestic Currency and Foreign Currency Assessments

CA-4.6.10

Where unrated exposures are risk weighted based on the rating of an equivalent exposure to that borrower, the general rule is that foreign currency ratings must be used for exposures in foreign currency. Domestic currency ratings, if separate, must only be used to risk weight claims denominated in the domestic currency.

CA-4.6.11

However, when an exposure arises through an Islamic bank licensee's participation in a credit facility that has been extended, or has been guaranteed against convertibility and transfer risk, by certain MDBs, its convertibility and transfer risk can be considered by CBB, on a case by case basis, to be effectively mitigated. To qualify, MDBs must have preferred creditor status recognised in the market and be included in MDB's qualifying for 0% risk rate under Paragraph CA-4.2.8. In such cases, for risk weighting purposes, the borrower's domestic currency rating may be used instead of its foreign currency rating. In the case of a guarantee against convertibility and transfer risk, the local currency rating can be used only for the portion that has been guaranteed. The portion of the loan not benefiting from such a guarantee will be risk-weighted based on the foreign currency rating.

⁴⁴ For example, if a bank is owed both principal and profit, the assessment must fully take into account and reflect the credit risk associated with repayment of both principal and profit.



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CA-4.6 External Credit Assessments (continued)

Short-term/Long-term Assessments

CA-4.6.12

For risk-weighting purposes, short-term assessments are deemed to be issue-specific. They can only be used to derive risk weights for claims arising from the rated facility. They cannot be generalised to other short-term claims, except under the conditions of Paragraph CA-4.6.14. In no event can a short-term rating be used to support a risk weight for an unrated long-term claim. Short-term assessments may only be used for short-term claims against banks and corporates. The table below provides a framework for banks' exposures to specific short-term facilities, such as a particular issuance of commercial paper (which does not fall under the definition of asset backed commercial paper (ABCP) in Chapter CA-8): For any Sharia contract with an original maturity of up to three months that is not rolled over, the short-term RW as set out in the following table must be applied.

Credit assessment	A-1/P-1 ⁴⁵	A-2/P-2	A-3/P-3	Others ⁴⁶
Risk weight	20%	50%	100%	150%

CA-4.6.13

If a short-term rated facility attracts a 50% risk-weight, unrated short-term claims cannot attract a risk weight lower than 100%. If an issuer has a short-term facility with an assessment that warrants a risk weight of 150%, all unrated claims, whether long-term or short-term, must also receive a 150% risk weight, unless the Islamic bank licensee uses recognised credit risk mitigation techniques for such claims.

CA-4.6.14

For short-term claims on Islamic bank licensees, the interaction with specific short-term assessments is expected to be the following:

- The general preferential treatment for short-term claims, as defined under Paragraphs CA-4.2.11 and CA-4.2.12, applies to all claims on Islamic bank licensees of up to three months original maturity when there is no specific short-term claim assessment;
- When there is a short-term assessment and such an assessment maps into a risk weight that is more favourable (i.e. lower) or identical to that derived from the general preferential treatment, the short-term assessment should be used for the specific claim only. Other short-term claims would benefit from the general preferential treatment; and
- When a specific short-term assessment for a short term claim on an Islamic bank licensee maps into a less favourable (higher) risk weight, the general short-term preferential treatment for inter-bank claims cannot be used. All unrated short-term claims should receive the same risk weighting as that implied by the specific short-term assessment.

⁴⁵ The notations follow the methodology used by Standard & Poor's and by Moody's Investors Service. The A-1 rating of Standard & Poor's includes both A-1+ and A-1-.

⁴⁶ This category includes all non-prime and B or C ratings.



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CA-4.6 External Credit Assessments (continued)

CA-4.6.15 When a short-term assessment is to be used, the institution making the assessment needs to meet all of the eligibility criteria for recognising ECAs as presented in Paragraph CA-4.6.1 in terms of its short-term assessment.

Level of Application of the Assessment

CA-4.6.16 External assessments for one entity within a corporate group must not be used to risk weight other entities within the same group.

Unsolicited Ratings

CA-4.6.17 Unsolicited ratings must be treated as unrated exposures.

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CA-4.7 Credit Risk Mitigation (continued)

Overarching Issues

CA-4.7.1 Banks use a number of techniques to mitigate the credit risks to which they are exposed. For example, exposures may be collateralised by first priority claims, in whole or in part with cash or securities, or may be guaranteed by a third party, or may be offset by use of Shair'a compliant hedging instruments. Additionally, banks may agree to net financing exposure against deposits or PSIA funds from the same counterparty. The exposure in respect of an obligor or other, counterparty can be further adjusted or reduced by taking into account the credit risk mitigation (CRM) techniques employed by Islamic banks (off-balance sheet items will first be converted into on-balance sheet equivalents prior to the CRM being applied).

CA-4.7.1A The framework set out in this sub-section of “General remarks” is applicable to all banking book exposures.

CA-4.7.1B Transaction in which CRM techniques are used must not receive a higher capital requirement than an otherwise identical transaction where such techniques are not used.

CA-4.7.2 The effects of CRM will not be double counted. Therefore, no additional recognition of CRM for regulatory capital purposes is applicable on claims for which an issue-specific rating is used that already reflects that CRM. For example, if an external rating for a specific issue has taken into account the effects of a guarantee attached to the issuance, this guarantee shall not be eligible for the purposes of CRM. Exposure amounts for facilities secured by real estate covered in Paragraphs CA-4.2.19 to CA-4.2.20 and fulfilling the criteria specified have risk weights that already recognise the CRM element, and accordingly, cannot be further reduced by the value of the underlying pledged real estate properties under this paragraphs or under paragraphs CA-4.7.10, CA-4.7.14 or CA-4.7.25.

CA-4.7.3 While the use of CRM techniques reduces or transfers credit risk, it simultaneously may increase other risks (residual risks). Residual risks include legal, operational, liquidity and market risks. Therefore, it is imperative that Islamic bank licensees employ robust procedures and processes to control these risks, including strategy; consideration of the underlying credit; valuation; policies and procedures; systems; control of roll-off risks; and management of concentration risk arising from the Islamic bank licensee's use of CRM techniques and its interaction with the Islamic bank licensee's overall credit risk profile. Where these risks are not adequately controlled, the CBB may impose additional capital charges or take supervisory actions.



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CA-4.7 Credit Risk Mitigation

CA-4.7.4

The collateral used as a part of CRM must be compliant with Shari'a requirements. The collateralisation⁴⁷ must be properly documented in a security agreement or in the body of a contract to the extent permissible by Shari'a and must be binding on all parties and legally enforceable in the relevant jurisdictions. The Islamic bank licensee must ensure that the CRM documentation is legally enforceable and must carry out periodic reviews to confirm its enforceability at all times. The Islamic bank licensee cannot recognise a commitment to provide collateral or a guarantee as an eligible CRM unless such a commitment is actually executed.

CA-4.7.5

There should be a negligible positive correlation, if any, between the value of collateral and the credit quality of a counterparty. Consequently, securities issued by a counterparty or its related entities are not eligible as collateral.

CA-4.7.6

For a collateralised transaction – such as Shari'a-compliant alternatives to repo/reverse repo or borrowing/lending of Sukuk and Islamic securities – capital requirements must be applicable on either side of the transaction.

⁴⁷ Generally, in banks such collateralisation takes place under the concept of “Rahn” or “Kafalah”.

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CA-4.7 Credit Risk Mitigation (continued)

Guarantees

CA-4.7.7

Capital relief for the use of a guarantee is given when the following conditions are satisfied:

- (a) The guarantee represents the Islamic bank licensee's direct claim on the guarantor, and it must be explicitly referenced to specific exposures or a pool of exposures so that the extent of the cover is clearly defined and incontrovertible;
- (b) The guarantee is irrevocable and does not allow the guarantor to unilaterally cancel the guarantee after creation of the receivables;
- (c) The guarantee is unconditional and provides no protection clause that prevents the guarantor from being obliged to pay out in a timely manner in the event that the original counterparty fails to make payments due;
- (d) The Islamic bank licensee has the right to pursue, in a timely manner, the guarantor for monies outstanding, rather than having to pursue the original counterparty to recover its exposure;
- (e) The guarantee is an explicitly documented and legally enforceable obligation assumed by the guarantor in all relevant jurisdictions. There must be a well-founded legal basis to reach this conclusion; and
- (f) The guarantee covers all types of expected payments made under the contract in the event that the original counterparty defaults.

CA-4.7.8

It is permitted to have a range of guarantors to cover the exposure. Guarantees issued by parties with a lower RW than the counterparty will result in a reduction of the capital charge because the credit exposure covered by the guarantee is assigned the RW of guarantor. The RW applicable to the uncovered portion remains that of the underlying counterparty.

CA-4.7.9

Takaful is not allowed as a credit risk mitigation technique unless the takaful operator provides a guarantee in which case CA-4.7.8 applies.

Leased Assets Used as Collateral

CA-4.7.10

Assets leased under Ijarah or IMB contracts fulfil a function similar to that of collateral, in that they may be repossessed by the lessor in the event of default by the lessee (hence the term "quasi-collateral" used in this and other IFSB standards). See CA-4.7.14 (g) and CA-4.7.25.

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CA-4.7 Credit Risk Mitigation (continued)

Pledge of Assets as Collateral

- CA-4.7.11** The pledged asset must be a Shari'a-compliant asset of monetary value that can be lawfully owned, and is saleable, specifiable, deliverable and free of encumbrance. The pledge must be legally enforceable. The asset pledged may either be the underlying asset, or any other eligible financial collateral owned by the customer (see Paragraph CA-4.7.25). The pledge of an asset owned by a third party is subject to the owner's consent to the pledge.
- CA-4.7.12** The pledger can authorise the Islamic bank licensee, as the pledgee, to sell the asset and to offset the amount due against the sales proceeds without recourse to the courts. Alternatively, the Islamic bank licensee can demand the sale of the pledged asset in order to recover the amount due. Any surplus from the sale proceeds is to be returned to the pledger, and any shortfall must be treated as an unsecured exposure that ranks pari passu with other unsecured creditors when the debtor is declared insolvent.
- CA-4.7.13** In case an Islamic bank licensee takes collateral of an asset pledged more than once, the collateral of the Islamic bank licensee must be ranked either pari passu to the collaterals of other earlier pledgees with their consent, or junior to the earlier pledgees, in which case the Islamic bank licensee's claim is limited to the residual value of the pledged asset after payment is made to earlier pledgees. The Islamic bank licensee must take the residual value after deducting a haircut under the simple approach or the comprehensive approach (the standard supervisory haircuts or the internal haircuts) to offset its credit exposure but must first ascertain the recoverable value of the asset after taking into consideration the Islamic bank licensee's position as a pledgee as to whether it ranks pari passu with the other pledgee(s) or ranks junior to a pledgee that is registered earlier than the Islamic bank licensee.

MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.7 Credit Risk Mitigation (continued)

Types of Eligible Collateral and Credit Risk Mitigants

CA-4.7.14

The types of collateral are eligible for relief in respect of the CRM techniques outlined in Paragraphs CA-4.7.7 to CA-4.7.13 include:

- (a) **Hamish jiddiyah and Urbun**
- (b) Cash on deposit⁴⁸ with the Islamic bank licensee which is incurring the exposure;
- (c) Sukuk rated by an external rating agency which is issued by:
 - (i) Sovereigns and PSEs (treated as sovereigns) with a minimum rating of BB-; or
 - (ii) Issuers other than the above and other than the concerned Islamic bank licensee, with a minimum rating of BBB- or A-3/ P-3;
- (d) Unrated Sukuk but which fulfil each of the following criteria:
 - (i) Issued by a bank other than the concerned Islamic bank licensee or a sovereign;
 - (ii) Listed on a recognised exchange;
 - (iii) All other rated issues by the issuing Islamic bank or conventional bank must be rated at least BBB - or A-3/P-3 by a recognised ECAI, as determined by the CBB;
 - (iv) The Islamic bank which incurs the exposure or is holding the collateral has no information to suggest that the issue would justify a rating below BBB- or A-3/P-3; and
 - (v) The Islamic bank licensee must show that these Sukuk are liquid in a two-way market;
- (e) Shari'a compliant equities and units in Islamic collective investment undertakings that are listed in a main index excluding those issued by the concerned bank (which are subject to the treatments for holdings of own instruments outlined in Paragraph CA-2.4.12);
- (f) Shari'a compliant guarantees issued by third parties that fall within the following categories:
 - (i) Sovereigns and central banks;
 - (ii) PSEs;
 - (iii) MDBs;
 - (iv) International organisations/official entities with 0% RW
 - (v) Islamic banks or conventional banks; and
 - (vi) Corporate entities (including Takaful and Shari'a compliant securities firms) either by the parent, subsidiary and/or affiliates, of a minimum rating of A-; and

⁴⁸ Must be supported by an agreement or documentation that gives the bank the right of set-off against the amount of receivables due. The treatment of netting of such deposits are outlined in Paragraph CA-4.2.30.

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CA-4.7 Credit Risk Mitigation (continued)

- (g) Assets fulfilling the function of collateral, as stated in Paragraph CA-4.7.10 , in respect of Ijarah and Ijarah Muntahiah Bitamleek) and legally enforceable pledges that can be sold or offset with no recourse to the courts, CA-4.7.12.

CA-4.7.14A Credit default guarantee provided by Tamkeen is recognised as an eligible credit risk mitigant.

CA-4.7.15 Any portion of the exposure which is not collateralised must be assigned the RW of the counterparty.

CA-4.7.16 Capital relief against the collateral can be granted based on either the simple or the comprehensive approach as described below in reducing the risk exposures in the banking book, however, a licensee can use either, but not both approaches. Islamic bank licensees must approach the CBB for approval before using the comprehensive approach. Islamic bank licensees can use partial collateralisation in both approaches. Maturity mismatches between exposure and collateral will only be allowed under the comprehensive approach.

The Simple Approach

CA-4.7.17 The Islamic bank licensee can substitute the RW of the collateral for the RW of the counterparty for the collateralised portion of the exposure, subject to the collateral being pledged for at least the duration of the contract. The minimum RW of the collateralised portion is not lower than 20% (with a limited exception in Paragraph CA-4.7.19B).

CA-4.7.18 The uncollateralised portion of the exposure continues to be assigned the RW of the counterparty.

CA-4.7.19 A 0% RW is applied to the collateralised portion under the simplified method where the exposure and the collateral are denominated in the same currency, and the collateral consists of any of the following:

- (a) Cash or cash equivalents;
- (b) A deposit with the Islamic bank licensee; or
- (c) Sovereign/ PSE securities eligible for a 0% RW, and the market value of such securities has been discounted by 20%.

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CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.7 Credit Risk Mitigation (continued)

Shari’a Compliant Hedging Instruments

CA-4.7.20 [This Paragraph was deleted in XX 2026. Refer to new chapter CA-4A on counterparty credit risk charge “SA-CCR”].

The Comprehensive Approach

CA-4.7.21 In the comprehensive approach, the exposure to a counterparty is adjusted based on the collateral used without the 20% floor of the simple approach. The Islamic bank licensee must adjust both the amount of the exposure to the counterparty and the value of the collateral shown in Paragraph CA-4.7.25, using haircuts and add-ons in order to reflect variations in the value of both the exposure and the collateral due to market movements. The resultant volatility-adjusted amount of exposure and collateral is used for the calculation of capital requirements for the underlying risk exposure. In most cases, the adjusted exposure is higher than the unadjusted exposure after application of the add-on and adjusted collateral is lower than the unadjusted collateral after application of the haircut, unless either of them is cash. An additional downward adjustment for collateral must be made if the underlying currencies of exposure and collateral are not denominated in the same currency, so as to take account of foreign exchange fluctuations in the future.

CA-4.7.22 Risk-weighted assets must be calculated by calculating the difference between the volatility adjusted exposure and the volatility-adjusted collateral and multiplying this adjusted exposure by the RW of the counterparty.⁴⁹

⁴⁹ This calculation will be carried out when the volatility-adjusted exposure amount is greater than the volatility-adjusted collateral amount, including any additional adjustment for foreign exchange risk.



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CA-4.7 Credit Risk Mitigation (continued)

CA-4.7.23 The formula for calculation of the adjusted exposure after incorporating risk mitigation using the comprehensive approach is as follows:

$E^* = \max \{0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\}$, where:
 E^* = Adjusted exposure amount after risk mitigation
 E = Exposure amount
 H_e = Applicable add-on for exposure
 C = The current value of underlying collateral
 H_c = Applicable haircut for collateral
 H_{fx} = Applicable haircut for foreign exchange exposure, in case exposure and collateral have dissimilar currencies

CA-4.7.24 If more than one asset is involved in a collateralised transaction, the haircut on the basket (H) will be a weighted sum of applicable haircuts to each asset (H_i), with asset weights (a_i) measured by units of currency – that is, $H = \sum a_i H_i$.

The Standard Supervisory Haircuts and Add-Ons

CA-4.7.25 Both the amount of exposure to counterparty and the value of collateral received are adjusted by using standard supervisory add-ons and haircuts as set out below with the exception of any exposures collateralised by own securities which are subject to treatment under Subparagraph CA-4.7.14(d) (and Chapter CA-2 as applicable):

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CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.7 Credit Risk Mitigation (continued)

Types of Collateral*	Residual Maturity (yrs)	Haircuts (%)		Securitisation Exposures
		Sovereigns ⁵⁰	Others	
Cash	All	0	0	0
Sukuk Long-term: AAA to AA- and Short-term: A-1	≤ 1 year	0.5	1	2
	> 1 year, ≤ 3 years	2	3	8
	> 3 years, ≤ 5 years		4	
	> 5 years, ≤ 10 years	4	6	16
	> 10 years		12	
Sukuk Long-term: A+ to BBB- and Short-term: A-2 to A-3	≤ 1	1	2	4
	> 1 to ≤ 3	3	4	12
	> 3 to ≤ 5		6	
	> 5 ≤ 10 years	6	12	24
	> 10 years		20	
Sukuk Long-term: BB+ to BB-	All	15	15 Not Eligible	4 Not Eligible
Sukuk (unrated)	All	25	25	
Equities (listed and included in main index)		20		
Equities (listed but not included in main index)		30		
Units in collective investment schemes		Highest haircut applicable to any security in which the fund can invest, unless the bank can apply the look-through approach (LTA) for equity investments in funds, in which case the bank may use a weighted average of haircuts applicable to instruments held by the fund.		
Assets fulfilling the function of collateral, as stated in Paragraph CA-4.7.10, (See also section CA-3.5 in respect of	All	≥ 30	≥ 30	

⁵⁰ Includes PSEs and MDBs



Ijarah and Ijarah Muntahiah Bitamleek[CB Assets fulfilling the function of collateral, as stated in Paragraph CA-4.7.10, in respect of Ijarah and Ijarah Muntahiah Bitamleek) and legally enforceable pledges that can be sold or offset with no recourse to the courts, CA-4.7.12 and legally enforceable pledges that can be sold or offset with no recourse to the courts, CA-4.7.12. , excluding real estate mortgages covered under CA-4.2.19 to CA-4.2.20.				
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* Collateral denominated in a different currency will also be subject to an additional 8% haircut to cater for foreign exchange risk (see Paragraph CA-4.7.26.



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CA-4.7 Credit Risk Mitigation (continued)

CA-4.7.26 The standard haircut for currency risk where exposure and collateral are denominated in different currencies is 8% (also based on a 10-business day holding period and daily mark-to-market). For transactions in which the Islamic bank licensee finances non-eligible instruments (e.g. non- investment grade securities), the haircut to be applied on the exposure must be 30%. For transactions in which the bank borrows non-eligible instruments, credit risk mitigation may not be applied.

Maturity Mismatch

CA-4.7.27 A maturity mismatch is a situation where the residual maturity of the CRM is less than that of the underlying credit exposure. In the case of a maturity mismatch with the CRM having a maturity of less than one year, the CRM is not recognised. This means that a CRM with a maturity mismatch is only permitted where its original maturity is at least one year. The simple approach must not be used for CRM with maturity mismatches.

CA-4.7.28 The following adjustment must be applied for a CRM with a maturity mismatch:

$$P_a = P \times (t - 0.25) / (T - 0.25), \text{ where:}$$

P_a = adjusted value of risk mitigation

P = value of risk mitigation used (e.g. collateral or guarantee amount)

T = min (5, residual maturity of the exposure) in years

t = min (T, residual maturity of the risk mitigation) in years

Credit Risk Mitigation for Mudarabah Classified as Equity Exposures

CA-4.7.29 A placement of funds made under a Mudarabah contract may be subject to a Shari'a-compliant guarantee from a third party. Such a guarantee relates only to the Mudarabah capital, not to the return. In such cases, the capital must be treated as subject to credit risk with a risk-weighting equal to that of the guarantor provided that the RW of that guarantor is lower than the RW of the Mudarib as a counterparty. Otherwise, the RW of the Mudarib must apply; that is, a RW for "equity exposure in banking book" applies, as per Paragraphs CA-4.8.16 to 4.8.18.



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CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.7 Credit Risk Mitigation (continued)

CA-4.7.30 In a Mudarabah investment in project finance, collateralisation of the progress payments made by the ultimate customers (e.g. by means of a "repayment account" – see Paragraph CA-4.8.18) can be used to mitigate the exposure to unsatisfactory performance by the Mudarib.

CA-4.7.31 An Islamic bank licensee may also place liquid funds with a central bank or another Islamic bank licensee on a short-term Mudarabah basis in order to obtain a return on those funds. Such placements serve as an interbank market transaction with maturities ranging from overnight up to three months, but the funds may be withdrawn on demand before the maturity date, in which case the return is calculated proportionately on the basis of duration and amount. Although from a juristic point of view the amounts so placed do not constitute debts, since (in the absence of misconduct or negligence) Mudarabah capital does not constitute a liability for the Mudarib, in practice the operation of this interbank market requires that the Mudarib should effectively treat them as liabilities. Hence, an Islamic bank licensee placing funds on this basis may treat them as cash equivalents and, for risk-weighting purposes, apply the RW applicable to the Mudarib as counterparty.

Treatment of an Exposure Covered by Multiple CRM Techniques

CA-4.7.32 If an exposure is covered by multiple CRM techniques (e.g. an exposure partially covered by both collateral and a guarantee), the Islamic bank licensee must segregate the exposure into segments covered by each type of CRM technique. The calculation of risk-weighted assets must be made separately for each segment. Similarly, if a single CRM has differing maturities, they must also be segregated into separate segments.

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CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.8 Exposures in Investments Made under Profit-Sharing Modes

CA-4.8.1 An Islamic bank licensee may provide financing and hold investments made under profit- and loss-sharing modes (Musharakah) or profit-sharing and loss-bearing modes (Mudarabah) which may be used, inter alia, to invest in the following:

- (a) A commercial enterprise to undertake a business venture (with the intention of holding the investment for an indefinite period or with a view to eventual sale, such as venture capital investments or privately held equity);
- (b) Diminishing Musharakah in which the share of the Islamic bank licensee can be gradually reduced during the tenure of the contract until the asset is fully sold to the partner(s);
- (c) An equity investment in a company or an Islamic collective investment scheme not held for short-term resale or trading purposes⁵¹;
- (d) A specific project; or
- (e) A joint ownership of real assets or movable assets (such as cars) on a Musharakah basis for onward lease or sale on an Ijara or a Mudarabah basis, respectively (i.e. Musharakah with an Ijara or Mudarabah sub-contract).

CA-4.8.2 This Section covers exposures of the Islamic bank licensees mentioned in Paragraph CA-4.8.1 that are held not for trading but for the purpose of earning investment returns from medium- to long-term financing (i.e. held in the "banking book"). Such investments are:

- (a) Not held with the intent of trading or short-term resale benefiting from actual or expected price movements (as in Subparagraph CA-4.8.1(a));
- (b) Not marked-to-market on a daily basis;
- (c) Not actively monitored with reference to market sources; and
- (d) Exposed to credit risk in the form of capital impairment risk.

CA-4.8.3

[This Paragraph was deleted in XX 2026]

⁵¹ Banking book investments would not normally include investments in listed common shares or listed Islamic collective investment schemes, which would instead be held in the trading book.

MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.8 Exposures in Investments made under Profit-Sharing Modes (Continued)

CA-4.8.4 Financing on a Musharakah or Mudarabah basis of a commercial enterprise to undertake a business venture can expose an Islamic bank licensee to capital impairment risk as well as credit risk, to an extent that depends on the structure and purpose of the financing and the types of assets in which the funds are invested. Commonly, an Islamic bank licensee would invest in a commercial enterprise with the intention of holding the investment for an indefinite period or with a view to eventual sale (as in the case of venture capital or private equity investments). As an equity investor, the Islamic bank licensee's rights and entitlements are subordinated to the claims of secured and unsecured creditors.

CA-4.8.5 Capital impairment risk is the risk of losing the amount invested in an enterprise or in the ownership of an asset. Such impairments may arise for two kinds of reasons:

- (a) The investee may be unprofitable, so that the Islamic bank licensee as investor fails to recover its investment; and
- (b) The Musharakah partner or Mudarib may fail either:
 - (i) To pay the Islamic bank licensee's share in the profit on a periodical basis, as contractually agreed; or
 - (ii) To settle the Islamic bank licensee's entitlement to its share of the capital and the profits at the time of redemption. The former kind of reason is an impairment of capital without any credit default being involved; whereas the latter, being a failure of the partner to meet its contractual obligations, is a type of credit default.

CA-4.8.6 Bearing in mind the relatively risky nature of financing based on profit-sharing modes, the CBB sets out some prudential conditions on Islamic bank licensees that invest IAH funds in such financing either directly or by commingling the funds of IAH with those of shareholders in such financing (see module CM). Unrestricted investment account holders (UIAH) typically have a small risk appetite and are content with an investment which has a relatively low risk and low returns.

CA-4.8.7 The RW for investments in commercial enterprises is calculated according to Paragraph CA-4.2.24.

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CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.8 Exposures in Investments made under Profit-Sharing Modes (Continued)

CA-4.8.8 The Islamic bank licensee shall assign a risk weight in according with CA-4.2.24 for its mushārah or muḍārah investments in commercial enterprises.

CA-4.8.9 [This Paragraph has been left blank.]

CA-4.8.10 [This Paragraph has been left blank.]

CA-4.8.11 [This Paragraph was deleted in XX 2026]



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.8 Exposures in Investments made under Profit-Sharing Modes (Continued)

CA-4.8.12

The Islamic bank licensee's position in a diminishing Musharakah entails two kinds of exposures:

- The amounts due from the partner to buy out the agreed shares of the investment on the agreed dates are subject to credit risk in respect of the partner's ability and willingness to pay.⁵² The Islamic bank licensee's selling price for each share of ownership being transferred is based either on the fair value of that share at the date of the partial transfer of ownership (which exposes the Islamic bank licensee to capital gains or losses and hence to capital impairment risk) or at a price agreed upon at the time of entering into the contract. The Islamic bank licensee's credit risk exposure in respect of the Musharakah investment is calculated based on the remaining balance of the amount invested (measured at historical cost, including any share of undistributed profits) less any specific provision for impairment. If there is a third-party undertaking to make good impairment losses, the RW of the third party is substituted for that of the outstanding balance of the Musharakah investment for the amount of any such undertaking; and
- As a joint-owner, the Islamic bank licensee is entitled to its share of income generated from its share of the underlying assets of the Musharakah, such as Ijara lease rentals (e.g. when a home purchase plan is provided by an Islamic bank licensee on the basis of diminishing Musharakah). The rental payable by the partner/customer as Ijara lessee is adjusted periodically to reflect the Islamic bank licensee's remaining ownership share in the asset. The Islamic bank licensee is exposed to credit risk in respect of non-payment of the rentals receivable from the partner/customer.

⁵² Diminishing Musharakah contracts typically contain a clause whereby, in the event of a default by the partner in making a due payment, the bank has the right to terminate the contract and to exercise a put option requiring the partner to buy out the whole of the bank's remaining share of the investment. However, a financially distressed partner will most likely be unable to do so.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.8 Exposures in Investments made under Profit-Sharing Modes (Continued)

CA-4.8.13

Based on Paragraph CA-4.8.13, when a diminishing Musharakah contract is related to a specific fixed asset/real estate leased to a customer under an Ijara contract, the Islamic bank licensee's credit exposure is similar to an exposure under a Musharakah with an Ijara sub-contract. In this case, the Musharakah investment is assigned:

- a) a RW based on the credit standing of the counterparty/lessee, as rated by an ECAI that is approved by the CBB or where the use of SCRA is appropriate;
- b) 100% RW on residual value of an asset; and
- c) In case the counterparty is unrated, a RW of 100% applies.

CA-4.8.14

[This Paragraph was deleted in XX 2026]

MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.8 Exposures in Investments made under Profit-Sharing Modes (Continued)

Equity Investments in a Company or an Islamic Collective Investment Scheme Not Held for Short-term Resale or Trading Purposes

CA-4.8.15 Following our examples of structures where equity investments in a company or a collective investment scheme shall apply look-through approach or mandate-based approach or the fall-back approach as provided in Section CA-4.2.

A Specified Project

CA-4.8.16 An Islamic bank licensee can advance funds to a construction company which acts as Mudarib in a construction contract for a third-party customer (ultimate customer). The ultimate customer will make progress payments to the Mudarib, who in turn makes payments to the Islamic bank licensee. The essential role of the Islamic bank licensee in this structure is to provide bridging finance to the Mudarib pending its receipt of the progress payments. In this Mudarabah structure, the Islamic bank licensee as investor advances funds as Rabb-al-Mal to the construction company as Mudarib for the construction project and is thus entitled to a share of the profit of the project but must bear 100% of any loss. In most cases, the Islamic bank licensee has no direct or contractual relationship with the ultimate customer, but in such a structure the Islamic bank licensee stipulates that payments by the ultimate customer to the Mudarib be made to an account (“repayment account”) with the Islamic bank licensee which has been opened for the purpose of the Mudarabah and from which the Mudarib may not make withdrawals without the Islamic bank licensee’s permission.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.8 Exposures in Investments made under Profit-Sharing Modes (Continued)

CA-4.8.17 Where Paragraph CA-4.8.17 applies, the Islamic bank licensee is exposed to the risk on the amounts advanced to the Mudarib under the Mudarabah contract, but this risk would be mitigated by the amounts received from the ultimate customer into the "repayment account" which are effectively collateralised. Under the Mudarabah contract the amounts advanced by the Islamic bank licensee to the Mudarib would normally be treated under credit risk as "equity positions in the banking book", the use of the structure involving a "repayment account", whereby the ultimate customer makes payments into such an account with the Islamic bank licensee instead of making payments directly to the Mudarib, has the effect of substituting the credit risk of the ultimate customer for that of the Mudarib to the extent of the collateralised balance of the "repayment account".

CA-4.8.18 In addition to credit risk (i.e. in the absence of a repayment account, the risk that the Mudarib has received payment from the ultimate customer but fails to pay the Islamic bank licensee, or, if the repayment account is used, that the ultimate customer fails to pay), the Islamic bank licensee is exposed to capital impairment in the event that the project results in a loss. The proposed RW and impact of credit risk mitigation are explained in Section CA-4.7.

Musharakah with Ijara or Murabaha Sub-contract

CA-4.8.19 An Islamic bank licensee can establish joint ownership of tangible fixed assets (such as cars, machinery, etc.) with a customer on a Musharakah basis, the assets being leased or sold on an Ijara or a Murabaha basis, respectively. In these cases, the "look-through" principle (whereby the RW is that of the underlying contract) applies.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4: Credit Risk – The Standardised Approach

CA-4.8 Exposures in Investments made under Profit-Sharing Modes (Continued)

CA-4.8.20 In the case of Ijara, ownership of such assets can produce rental income for the partnership, through leasing the assets to third parties by means of Ijara contracts. In this case, the risk of the Musharakah investment is that of the underlying Ijara contracts – that is, credit risk mitigated by the "quasi-collateral"⁵³ represented by the leased assets. In the event the asset is leased to the Islamic bank licensee's partner as a customer instead of to a third party, the credit risk relates to the partner's obligation to pay the lease rentals. This Musharakah investment is assigned a RW based on the credit standing of the counterparty/lessee, as rated by a CBB-approved ECAI, plus a 100% RW on the residual value of the Ijara asset. In the event the counterparty is unrated, a RW of 100% applies.

CA-4.8.21 In the case of Murabaha, the Islamic bank licensee is entitled to its share of income (mark-up) generated from selling the assets to third parties. The Islamic bank licensee as a capital contributor is exposed to credit risk in respect of the Murabaha receivables from the buyer/counterparty. This Musharakah investment must be assigned a RW based on the credit standing of the counterparty/buyer, as rated by a CBB-approved ECAI. In the event the counterparty is unrated, a RW of 100% applies.

⁵³ Strictly speaking, Ijara assets do not provide collateral to the lessor, as the latter owns the assets, but can repossess them in the event of default by the lessee. This provides what may be called "quasi-collateral".



MODULE	CA: Capital Adequacy
CHAPTER	CA-4A: SA-CCR

CA-4A.1 Scope of counterparty credit risk charge

CA-4A.1.1 Shari'a-compliant over-the-counter (OTC) hedging contracts expose an Islamic bank licensee to counterparty credit risk (CCR). CCR refers to the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transactions, or portfolio of transactions, with the counterparty had a positive economic value at the time of default. Unlike an Islamic bank licensee's exposure to credit risk through a financing arrangement, where the exposure to credit risk is unilateral and only the Islamic bank licensee financing the transaction faces the risk of loss, CCR involves a bilateral risk of loss; that is, the market value of the transaction can be positive or negative to either counterparty to the transaction, depending on the movements in the market prices of the underlying variables.

A credit equivalent for Shari'a-compliant hedging techniques is to be calculated under the SA-CCR. The credit equivalent exposure is based on the positive mark-to-market replacement cost of the contract. An add-on factor must be added to cover for potential future credit exposure. (See Appendix CA-2 for full details. Also see Paragraph CA-4.7.20 for conditions for applying 0% RW to such contracts.)

This Chapter sets out the methods for computing the exposure amount under the standardised approach for counterparty credit risk (SA-CCR). Appendix CA-2 contains all the definitions and terminologies. Some transactions give rise to a bilateral risk of loss and therefore give rise to a counterparty credit risk charge. For example:

- (a) A bank finances a borrower and receives collateral from the borrower⁴⁶.
 - (i) The bank is exposed to the risk that the borrower defaults and the sale of the collateral is insufficient to cover the loss on the loan.
 - (ii) The borrower is exposed to the risk that the bank defaults and does not return the collateral. Even in cases where the customer has the legal right to offset the amount it owes on the loan in compensation for the lost collateral, the customer is still exposed to the risk of loss at the outset of the loan because the value of the loan may be less than the value of the collateral the time of default of the bank.
- (b) A bank borrows cash from a counterparty and posts collateral to the counterparty (or undertakes a transaction that is economically equivalent, such as the sale and repurchase (repo) of a security).
 - (i) The bank is exposed to the risk that its counterparty defaults and does not return the collateral that the bank posted.
 - (ii) The counterparty is exposed to the risk that the bank defaults and the amount the counterparty raises from the sale of the collateral that the bank posted is insufficient to cover the loss on the counterparty's loan to the bank.
- (c) A bank borrows a security from a counterparty and posts cash to the counterparty as collateral (or undertakes a transaction that is economically equivalent, such as a reverse repo).
 - (i) The bank is exposed to the risk that its counterparty defaults and does not return the cash that the bank posted as collateral.

⁴⁶ The bilateral risk of loss in this example arises because the bank receives, i.e. takes possession of, the collateral as part of the transaction. By contrast, collateralized loans where the collateral is not exchanged prior to default, do not give rise to a bilateral risk of loss; for example a corporate or retail loan secured on a property of the borrower where the bank may only take possession of the property when the borrower defaults does not give rise to counterparty credit risk.



- (ii) The counterparty is exposed to the risk that the bank defaults and the cash that the bank posted as collateral is insufficient to cover the loss of the security that the bank borrowed.
- (d) A bank enters a shari'a compliant hedging transaction with a counterparty (e.g. it enters a swap transaction or purchases an option). The value of the transaction can vary over time with the movement of underlying market factors⁴⁷.
 - (i) The bank is exposed to the risk that the counterparty defaults when the Shari'a compliant hedging has a positive value for the bank.
 - (ii) The counterparty is exposed to the risk that the bank defaults when the shari'a compliant hedging has a positive value for the counterparty.

⁴⁷ The counterparty credit risk rules capture the risk of loss to the bank from the default of the Shari'a compliant hedging instrument counterparty. The risk of gains or losses on the changing market value of the Shari'a compliant hedging instruments is captured by the market risk framework.

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CA-4A.1 Scope of counterparty credit risk charge (continued)

CA-4A.1.2 Banks must calculate a counterparty credit risk charge for all exposures that give rise to counterparty credit risk, with the exception of those transactions listed in Paragraph CA-4A.1.3 below. The categories of transaction that give rise to counterparty credit risk are:

- (a) Over-the-counter (OTC) shari'a compliant hedging;
- (b) Exchange-traded Shari'a compliant hedging instruments ;
- (c) Long settlement transactions; and
- (d) Securities financing transactions.

CA-4A.1.3 Transactions referred to in CA-4A.1.2 generally exhibit the following abstract characteristics:

- (a) The transactions generate a current exposure or market value;
- (b) The transactions have an associated random future market value based on market variables;
- (c) The transactions generate an exchange of payments or an exchange of a financial instrument (including commodities) against payment; and
- (d) The transactions are undertaken with an identified counterparty against which a unique probability of default can be determined.

CA-4A.1.4 Other common characteristics of the transactions to be covered may include the following:

- (a) Collateral may be used to mitigate risk exposure and is inherent in the nature of some transactions;
- (b) Short-term financing may be a primary objective in that the transactions mostly consist of an exchange of one asset for another (cash or securities) for a relatively short period of time, usually for the business purpose of financing. The two sides of the transactions are not the result of separate decisions, but form an indivisible whole to accomplish a defined objective;
- (c) Netting may be used to mitigate the risk;
- (d) Positions are frequently valued (most commonly on a daily basis), according to market variables; and
- (e) Re-margining may be employed.

CA-4A.1.5 For the transaction types listed CA-4A.1.2 above, banks must calculate their counterparty credit risk exposure, or exposure at default (EAD) using one of the methods set out in CA-4A.2.1 to CA-4A.2.2 below. The methods vary according to the type of the transaction, the counterparty to the transaction, and whether the bank has received supervisory approval to use the method (if such approval is required).



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CA-4A.2 Methods of Calculation

CA-4A.2.1 For exposures that are not cleared through a central counterparty (CCP) the following methods must be used to calculate the counterparty credit risk exposure:

- (a) Standardised approach for measuring counterparty credit risk exposures (SA-CCR), which is set out in Section CA-4A.3. This method is to be used for exposures arising from OTC shari'a compliant hedging, exchange-traded shari'a compliant hedging and long settlement transactions.
- (b) The simple approach or comprehensive approach to the recognition of collateral, which are both set out in Chapter CA-4.

CA-4A.2.2 For exposures that are cleared through a CCP, banks must apply the method set out in Section CA-4A.4. This method covers:

- (a) The exposures of a bank to a CCPs when the bank is a clearing member of the CCP;
- (b) The exposures of a bank to its clients, when the bank is a clearing member and act as an intermediary between the client and the CCP; and
- (c) The exposures of a bank to a clearing member of a CCP, when the bank is a client of the clearing member and the clearing member is acting as an intermediary between the bank and the CCP.

CA-4A.2.3 Exposures to central counterparties arising from the settlement of cash transactions (equities, fixed income, spot foreign exchange and spot commodities), are covered under Appendix CA-4.

CA-4A.2.4 Under the methods outlined above, the exposure amount or EAD for a given counterparty is equal to the sum of the exposure amounts or EADs calculated for each netting set with that counterparty, subject to the exception of EAD for a given OTC Shari'a compliant hedging instrument counterparty which is defined as the greater of zero and the difference between the sum of EADs across all netting sets with the counterparty and the credit valuation adjustment (CVA) for that counterparty which has already been recognised by the bank as an incurred write-down (i.e. a CVA loss). This CVA loss is calculated without taking into account any offsetting debit valuation adjustments which have been deducted from CET1 as per Paragraph CA-2.1.2A. This reduction of EAD by incurred CVA losses does not apply to the determination of the CVA risk capital requirement.



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CA-4A.2 Methods of Calculation (continued)

CA-4A.2.5 After calculating counterparty credit risk exposures, or EAD, according to the methods outlined above, they must apply the standardised approach to credit risk, or, in the case of the exposures to CCPs, the capital requirements set out in Section CA-4A.4. For counterparties to which the bank applies the standardised approach, the counterparty credit risk exposure amount will be risk weighted according to the relevant risk weight of the counterparty.

CA-4A.2.6 As an exception to the scope requirements of CA-4A.1.2 above, banks are not required to calculate a counterparty credit risk charge for credit shari'a compliant hedging protection purchased by the bank against a banking book exposure, or against a counterparty credit risk exposure. In such cases, the bank will determine its capital requirement for the hedged exposure according to the criteria and general rules for the recognition of credit shari'a compliant hedging within the standardised approach. Banks are also not required to calculate a counterparty credit risk charge for Sold credit default swaps in the banking book where they are treated in the framework as a guarantee provided by the bank and subject to a credit risk charge for the full notional amount.



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CA-4A.3 Standardized Approach for Counterparty Credit Risk

CA-4A.3.1 Under the SA-CCR, a bank will be required to calculate the amount of its CCR exposure in respect of its portfolio of Shari'a compliant hedging contracts with a counterparty as follows:

Where:

CCR exposure amount (EAD) = $\alpha * (RC + PFE)$

Alpha = 1.4 for financial entities, and 1.0 for non financial entities

RC is the replacement cost calculated in the manner described below; and

PFE is the potential future exposure calculated in the manner described below.

The CCR exposure amount for a margined netting set is capped at the CCR exposure amount of the same netting set calculated on an un-margined basis.

The replacement cost (RC) and the potential future exposure (PFE) components are calculated differently for margined and unmargined netting sets. Margined netting sets are netting sets covered by a margin agreement under which the bank's counterparty has to post variation margin; all other netting sets, including those covered by a one-way margin agreement where only the bank posts variation margin, are treated as unmargined for the purposes of the SA-CCR. The EAD for a margined netting set is capped at the EAD of the same netting set calculated on an unmargined basis.

CA-4A.3.2 For un-margined transactions, the RC intends to capture the loss that would occur if a counterparty were to default and were closed out of its transactions immediately. The PFE add-on represents a potential conservative increase in exposure over a 1-year time horizon from the present date (i.e. the calculation date).

CA-4A.3.3 For margined trades, the RC intends to capture the loss that would occur if a counterparty were to default at the present or at a future time, assuming that the closeout and replacement of transactions occur instantaneously. However, there may be a period (the margin period of risk) between the last exchange of collateral before default and replacement of the trades in the market. The PFE add-on represents the potential change in value of the trades during this time period.

CA-4A.3.4 In both cases, in CA-4A.3.2 and CA-4A.3.3 above, the haircut applicable to non-cash collateral in the replacement cost formulation represents the potential change in value of the collateral during the appropriate time period (1 year for un-margined trades and the margin period of risk for margined trades).

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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

CA-4A.3.5 Replacement cost is calculated at the netting set level, whereas PFE add-ons are calculated for each asset class within a given netting set and then aggregated (see Paragraphs CA-4A.3.17 to CA-4A.3.54) below.

CA-4A.3.6 Banks may net transactions (e.g. when determining the RC component of a netting set) subject to novation under which any obligation between a bank and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations. Banks may also net transactions subject to any legally valid form of bilateral netting not covered in the preceding sentence, including other forms of novation. In every such case where netting is applied, a bank must satisfy the CBB that it has:

- (a) A netting contract with the counterparty or other agreement which creates a single legal obligation, covering all included transactions, so that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark-to-market values of included individual transactions in the event a counterparty fails to perform due to any of the following: Default, bankruptcy, liquidation or similar circumstances;
- (b) Written and reasoned legal reviews that, in the event of a legal challenge, the relevant courts and administrative authorities would find the bank's exposure to be such a net amount under:
 - (i) The law of the jurisdiction in which the counterparty is chartered and, if the foreign branch of a counterparty is involved, then also under the law of the jurisdiction in which the branch is located;
 - (ii) The law that governs the individual transactions; and
 - (iii) The law that governs any contract or agreement necessary to effect the netting.
- (c) Procedures in place to ensure that the legal characteristics of netting arrangements are kept under review in light of the possible changes in relevant law.



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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

Calculation of Replacement Cost

CA-4A.3.7 There are two formulations of replacement cost, depending on whether the trades with a counterparty are subject to a margin agreement. Where a margin agreement exists, the formulation could apply both to bilateral transactions and central clearing relationships. The formulation also addresses the various arrangements that a licensee may have to post and/or receive collateral that may be referred to as initial margin.

Formulation for Un-margined Transactions

CA-4A.3.8 For un-margined transactions (that is, where variation margin ('VM') is not exchanged, but collateral other than VM may be present), RC is defined as the greater of: (i) the current market value of the shari'a compliant hedging contracts less net haircut collateral held by the bank (if any), and (ii) zero. This is consistent with the use of replacement cost as the measure of current exposure, meaning that when the bank owes the counterparty money it has no exposure to the counterparty if it can instantly replace its trades and sell collateral at current market prices.

Mathematically:

$$RC = \max \{V - C; 0\}$$

Where V is the value of the shari'a compliant hedging transactions in the netting set and C is the haircut value of net collateral held, which is calculated in accordance with the NICA methodology defined in Paragraph CA-4A.3.17. For this purpose, the value of non-cash collateral posted by the bank to its counterparty is increased and the value of the non-cash collateral received by the bank from its counterparty is decreased using haircuts (which are the same as those that apply to repo-style transactions) for the time periods described in Paragraph CA-4A.3.4.

CA-4A.3.9 In the above formulation, it is assumed that the replacement cost representing today's exposure to the counterparty cannot go less than zero. However, banks sometimes hold excess collateral (even in the absence of a margin agreement) or have out-of-the-money trades which can further protect the bank from the increase of the exposure. As discussed in Paragraphs CA-4A.3.15 to CA-4A.3.16, the SA-CCR would allow such over-collateralisation and negative mark-to-market value to reduce PFE, but would not affect replacement cost.

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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

CA-4A.3.10 Bilateral transactions with a one-way margining agreement in favour of the bank's counterparty (that is, where a bank posts, but does not collect, collateral) must be treated as un-margined transactions.

Formulation for margined transactions

CA-4A.3.11 The RC for margined transactions in the SA-CCR is defined as the greatest exposure that would not trigger a call for VM, taking into account the mechanics of collateral exchanges in margining agreements. Such mechanics include, for example, 'Threshold', 'Minimum Transfer Amount' and 'Independent Amount' in the standard industry documentation, which are factored into a call for VM.

CA-4A.3.12 One objective of the SA-CCR is to more fully reflect the effect of margining agreements and the associated exchange of collateral in the calculation of CCR exposures. To avoid confusion surrounding the use of terms initial margin and independent amount which are used in various contexts and sometimes interchangeably, the term independent collateral amount ('ICA') is introduced.

CA-4A.3.13 ICA represents (i) collateral (other than VM) posted by the counterparty that the bank may seize upon default of the counterparty, the amount of which does not change in response to the value of the transactions it secures and/or (ii) the Independent Amount ('IA') parameter, as defined in standard industry documentation. ICA can change in response to factors such as the value of the collateral, or a change in the number of transactions in the netting set. Because both a bank and its counterparty may be required to post ICA, it is necessary to introduce a companion term, net independent collateral amount ('NICA'), to describe the amount of collateral that a bank may use to offset its exposure on the default of the counterparty. NICA does not include collateral that a bank has posted to a segregated, bankruptcy remote account, which, presumably, would be returned upon the bankruptcy of the counterparty. That is, NICA represents any collateral (segregated or unsegregated) posted by the counterparty less the unsegregated collateral posted by the bank. With respect to IA, NICA takes into account the differential of IA required for the bank minus IA required for the counterparty.

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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

For margined trades, the replacement cost is:
 $RC = \max \{V - C; TH + MTA - NICA; 0\}$

Where V and C are defined as in the un-margined formulation, TH is the positive threshold before the counterparty must send the bank collateral, and MTA is the minimum transfer amount applicable to the counterparty.

TH + MTA – NICA represents the largest exposure that would not trigger a VM call and it contains levels of collateral that need always to be maintained. For example, without initial margin or IA, the greatest exposure that would not trigger a variation margin call is the threshold plus any minimum transfer amount. In the adapted formulation, NICA is subtracted from TH + MTA. This makes the calculation more accurate by fully reflecting both the actual level of exposure that would not trigger a margin call and the effect of collateral held and/or posted by a bank. The calculation is floored at zero, recognising that the bank may hold NICA in excess of TH + MTA, which could otherwise result in a negative replacement cost.

PFE of a Netting Set

CA-4A.3.14 The PFE add-on consists of: (i) an aggregate add-on component; and (ii) a multiplier that allows for the recognition of excess collateral or negative mark-to market value for the transactions within the netting set. The formula for PFE is as follows, where:

$$PFE = multiplier \cdot AddOn^{aggregate}$$

Where:

$AddOn^{aggregate}$ is the aggregate add-on component (See CA-4A.3.18) and multiplier is defined as a function of three inputs: V, C and $AddOn^{aggregate}$

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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

Recognition of Excess Collateral and Negative Mark-to-market

CA-4A.3.15 As a general principle, holding excess collateral (i.e. collateral greater than the net market value of the shari'a compliant hedging contracts) will reduce capital requirements for counterparty credit risk as it can offset potential increases in exposure represented by the add-on. Collateral may also reduce the replacement cost component of the exposure under the SA-CCR. The *PFE* component also reflects the risk-reducing property of excess collateral. A multiplier is applied to the *PFE* component that decreases as excess collateral increases, without reaching zero (the multiplier is floored at 5 percent of the *PFE* add-on).

CA-4A.3.16 When the collateral held is less than the net market value of the shari'a compliant hedging contracts ('under-collateralisation'), the current replacement cost is positive and the multiplier is equal to one (i.e. the *PFE* component is equal to the full value of the aggregate add-on). Where the collateral held is greater than the net market value of the shari'a compliant hedging contracts ('over-collateralisation'), the current replacement cost is zero and the multiplier is less than one (i.e. the *PFE* component is less than the full value of the aggregate add-on). This multiplier will also be activated when the current value of the shari'a compliant hedging transactions is negative. This is because out-of-the-money transactions do not currently represent an exposure and have less chance to go in-the money.

Mathematically:

$$\text{multiplier} = \min \left\{ 1; \text{floor} + (1 - \text{floor}) * \exp \left[\frac{V - C}{2 * (1 - \text{floor}) * \text{AddOn}^{\text{aggregate}}} \right] \right\}$$

Where exp (...) equals to the exponential function, Floor is 5%, V is the value of the shari'a compliant hedging transactions in the netting set, and C is the haircut value of net collateral held.

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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

Aggregation Add-on and Asset Classes

CA-4A.3.17 To calculate the aggregate add-on, banks must calculate add-ons for each asset class within the netting set. The SA-CCR uses the following five asset classes:

- (a) Profit rate Shari'a compliant hedging instruments;
- (b) Foreign exchange Shari'a compliant hedging instruments;
- (c) Credit Shari'a compliant hedging instruments;
- (d) Equity Shari'a compliant hedging instruments; and
- (e) Commodity Shari'a compliant hedging instruments.

CA-4A.3.18 Diversification benefits across asset classes are not recognised. Instead, the respective add-ons for each asset class are simply aggregated.

Mathematically:

$$\text{AddOn}^{\text{aggregate}} = \sum_{\text{assetclass}} \text{AddOn}^{\text{(assetclass)}}$$

Allocation of Shari'a compliant hedging Transactions to one or more Asset Classes

CA-4A.3.19 The designation of a Shari'a compliant hedging transaction to an asset class is to be made on the basis of its primary risk driver (e.g. profit rate curve for profit rate swap, a reference entity for a credit default swap, a foreign exchange rate for a foreign exchange (FX) call option, etc.). When this primary risk driver is clearly identifiable, the transaction will fall into one of the asset classes described above. For more complex trades that may have more than one risk driver (e.g. multi-asset or hybrid Shari'a compliant hedging instruments), banks must take sensitivities and volatility of the underlying into account for determining the primary risk driver.



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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

General Steps for Calculating PFE add-on for each Asset Class

CA-4A.3.20 For each transaction, the primary risk factor or factors need to be determined and attributed to one or more of the five asset classes: profit rate, foreign exchange, credit, equity or commodity. The add-on for each asset class is calculated using asset-class-specific formulas. Although the formulas for the asset class add-ons vary between asset classes, they all use the following general steps:

(1) The *effective notional (D)* must be calculated for each Shari'a compliant hedging instrument (i.e. each individual trade) in the netting set. The effective notional is a measure of the sensitivity of the trade to movements in underlying risk factors (i.e. profit rates, exchange rates, credit spreads, equity prices and commodity prices). The effective notional is calculated as the product of the following parameters (ie $D = d * MF * \delta$):

(a) *The adjusted notional (d)*. The adjusted notional is a measure of the size of the trade. For Shari'a compliant hedging instruments in the foreign exchange asset class this is simply the notional value of the foreign currency leg of the Shari'a compliant hedging contract, converted to the domestic currency. For Shari'a compliant hedging instruments in the equity and commodity asset classes, it is simply the current price of the relevant share or unit of commodity multiplied by the number of shares / units that the Shari'a compliant hedging references. For Shari'a compliant hedging instruments in the profit rate and credit asset classes, the notional amount is adjusted by a measure of the duration of the instrument to account for the fact that the value of instruments with longer durations are more sensitive to movements in underlying risk factors (i.e. profit rates and credit spreads).

(b) *The maturity factor (MF)*. The maturity factor is a parameter that takes account of the time period over which the potential future exposure is calculated. The calculation of the maturity factor varies depending on whether the netting set is margined or unmargined.

(c) *The supervisory delta (δ)*. The supervisory delta is used to ensure that the effective notional take into account the direction of the trade, ie whether the trade is long or short, by having a positive or negative sign. It is also takes into account whether the trade has a non-linear relationship with the underlying risk factor (which is the case for options and collateralised debt obligation tranches).



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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

- (2) A supervisory factor (SF) is identified for each individual trade in the netting set. The supervisory factor is the supervisory specified change in value of the underlying risk factor on which the potential future exposure calculation is based, which has been calibrated to take into account the volatility of underlying risk factors.
- (3) The trades within each asset class are separated into supervisory specified hedging sets. The purpose of the hedging sets is to group together trades within the netting set where long and short positions should be permitted to offset each other in the calculation of potential future exposure.
- (4) Aggregation formulas are applied to aggregate the effective notionals and supervisory factors across all trades within each hedging set and finally at the asset-class level to give the asset class level add-on. The method of aggregation varies between asset classes and for credit, equity and commodity Shari'a compliant hedging instruments it also involves the application of supervisory correlation parameters to capture diversification of trades and basis risk.

Time Period Parameters: M_i , E_i , S_i and T_i

CA-4A.3.21 There are four time period parameters that are used in the SA-CCR (all expressed in years):

- (1) For all asset classes, the maturity M_i of a contract is the time period (starting today) until the latest day when the contract may still be active. This time period appears in the maturity factor defined in CA-4A.3.34 to CA-4A.3.38 that scales down the adjusted notionals for unmargined trades for all asset classes. If a Shari'a compliant hedging contract has another Shari'a compliant hedging contract as its underlying (for example, a swaption) and may be physically exercised into the underlying contract (i.e. a bank would assume a position in the underlying contract in the event of exercise), then maturity of the contract is the time period until the final settlement date of the underlying Shari'a compliant hedging instruments contract.
- (2) For profit rate and credit Shari'a compliant hedging instruments, S_i is the period of time (starting today) until start of the time period referenced by a profit rate or credit contract. If the Shari'a compliant hedging instruments references the value of another profit rate or credit instrument (e.g. swaption or bond option), the time period must be determined on the basis of the underlying instrument. S_i appears in the definition of supervisory duration defined in CA-4A.3.24.

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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

- (3) For profit rate and credit Shari'a compliant hedging instruments, E_i is the period of time (starting today) until the end of the time period referenced by a profit rate or credit contract. If the Shari'a compliant hedging instruments references the value of another profit rate or credit instrument (e.g. swaption or bond option), the time period must be determined on the basis of the underlying instrument. E_i appears in the definition of supervisory duration defined in CA-4A.3.24. In addition, E_i is used for allocating Shari'a compliant hedging instruments in the profit rate asset class to maturity buckets, which are used in the calculation of the asset class add-on (see CA-4A.3.42 (3)).
- (4) For options in all asset classes, T_i is the time period (starting today) until the latest contractual exercise date as referenced by the contract. This period shall be used for the determination of the option's supervisory delta in CA-4A.3.28.

CA-4A.3.22 The table in Annex 2 includes example transactions and provides each transaction's related maturity M_i , start date S_i and end date E_i . In addition, the option delta CA-4A.3.28 depends on the latest contractual exercise date T_i (not separately shown in the table).

Trade-level adjusted notional (for trade): d_i

CA-4A.3.23 The adjusted notionals are defined at the trade level and take into account both the size of a position and its maturity dependency, if any.

CA-4A.3.24 For profit rate and credit Shari'a compliant hedging instruments, the trade-level adjusted notional is the product of the trade notional amount, converted to the domestic currency, and the supervisory duration SD_i , which is given by the formula below (i.e. $d = \text{notional} * SD_i$). The calculated value of SD_i is floored at ten business days. If the start date has occurred (e.g. an ongoing profit rate swap), S_i must be set to zero.

$$SD_i = \frac{\exp(-0.05 * S_i) - \exp(-0.05 * E_i)}{0.05}$$

CA-4A.3.25 For foreign exchange Shari'a compliant hedging instruments, the adjusted notional is defined as the notional of the foreign currency leg of the contract, converted to the domestic currency. If both legs of a foreign exchange Shari'a compliant hedging instruments are denominated in currencies other than the domestic currency, the notional amount of each leg is converted to the domestic currency and the leg with the larger domestic currency value is the adjusted notional amount.



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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

CA-4A.3.26 For equity and commodity Shari'a compliant hedging instruments, the adjusted notional is defined as the product of the current price of one unit of the stock or commodity (e.g. a share of equity or barrel of oil) and the number of units referenced by the trade.

CA-4A.3.27 In cases where the trade notional amount is not stated clearly, banks must use the following rules to determine the trade notional amount:

- Where the notional is a formula of market values, the bank must enter the current market values to determine the trade notional amount;
- For all profit rate and Shari'a compliant hedging instruments with variable notional amounts specified in the contract such as amortising and accreting swaps, banks must use the average notional over the remaining life of the Shari'a compliant hedging instruments as the trade notional amount. The average should be calculated as "time weighted". The averaging described in this paragraph does not cover transactions where the notional varies due to price changes (typically, FX, equity and Shari'a compliant hedging commodity);
- Leveraged swaps must be converted to the notional of the equivalent unleveraged swap, that is, where all rates in a swap are multiplied by a factor, the stated notional must be multiplied by the factor on the profit rates to determine the trade notional amount;
- For a Shari'a compliant hedging contract with multiple exchanges of principal, the notional is multiplied by the number of exchanges of principal in the Shari'a compliant hedging contract to determine the trade notional amount; and
- For a Shari'a compliant hedging instruments contract that is structured such that on specified dates any outstanding exposure is settled and the terms are reset so that the fair value of the contract is zero, the remaining maturity equals the time until the next reset date.

CA-4A.3.28 The supervisory delta adjustment (δ_i) parameters are also defined at the trade level and are applied to the adjusted notional amounts to reflect the direction of the transaction and its non-linearity. The delta adjustments for all instruments are set out in the tables below:

δ_i	Long in the primary risk factor	Short in the primary risk factor
Instruments that are not options or CDO tranches	+1	-1



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The delta adjustments for options:

δ_i	Bought	Sold
Call Options	$+\Phi\left(\frac{\ln(P_i / K_i) + 0.5 * \sigma_i^2 * T_i}{\sigma_i * \sqrt{T_i}}\right)$	$-\Phi\left(\frac{\ln(P_i / K_i) + 0.5 * \sigma_i^2 * T_i}{\sigma_i * \sqrt{T_i}}\right)$
Put Options	$-\Phi\left(\frac{\ln(P_i / K_i) + 0.5 * \sigma_i^2 * T_i}{\sigma_i * \sqrt{T_i}}\right)$	$+\Phi\left(\frac{\ln(P_i / K_i) + 0.5 * \sigma_i^2 * T_i}{\sigma_i * \sqrt{T_i}}\right)$

The following parameters that banks must determine appropriately:

P_i : Underlying price (spot, forward, average, etc.)

K_i : Strike price

T_i : Latest contractual exercise date of the option

The supervisory volatility σ_i of an option is specified on the basis of supervisory factor applicable to the trade (see CA-4A.3.51)

The symbol Φ represents the standard normal cumulative distribution function.

The delta adjustments for CDO tranches:

δ_i	Purchased (long protection)	Sold (short protection)
CDO tranches	$+\frac{15}{(1 + 14 * A_i) * (1 + 14 * D_i)}$	$-\frac{15}{(1 + 14 * A_i) * (1 + 14 * D_i)}$

The following are parameters that banks must determine appropriately:

A_i : Attachment point of the CDO tranche

D_i : Detachment point of the CDO tranche

Effective notional for options

CA-4A.3.29 For single-payment options the effective notional (i.e. $D = d * MF * \delta$) is calculated using the following specifications:

- (a) For European, Asian, American and Bermudan put and call options, the supervisory delta must be calculated using the simplified Black-Scholes formula referenced in Paragraph CA-4A.3.29. In the case of Asian options, the underlying price must be set equal to the current value of the average used in the payoff. In the case of American and Bermudan options, the latest allowed exercise date must be used as the exercise date T_i in the formula.



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- (b) For Bermudan swaptions, the start date S_i must be equal to the earliest allowed exercise date, while the end date E_i must be equal to the end date of the underlying swap.
- (c) For digital options, the payoff of each digital option (bought or sold) with strike K_i must be approximated via the “collar” combination of bought and sold European options of the same type (call or put), with the strikes set equal to $0.95 \cdot K_i$ and $1.05 \cdot K_i$. The size of the position in the collar components must be such that the digital payoff is reproduced exactly outside the region between the two strikes. The effective notional is then computed for the bought and sold European components of the collar separately, using the option formulae for the supervisory delta referenced in CA-4A.3.29 (the exercise date T and the current value of the underlying P of the digital option must be used). The absolute value of the digital-option effective notional must be capped by the ratio of the digital payoff to the relevant supervisory factor.
- (d) If a trade’s payoff can be represented as a combination of European option payoffs (e.g. collar, butterfly/calendar spread, straddle, strangle), each European option component must be treated as a separate trade.
- (e) For the purposes of effective notional calculations, multiple-payment options may be represented as a combination of single-payment options. In particular, profit rate caps/floors may be represented as the portfolio of individual caplets /floorlets, each of which is a European option on the floating profit rate over a specific coupon period. For each caplet/floorlet, S_i and T_i are the time periods starting from the current date to the start of the coupon period, while E_i is the time period starting from the current date to the end of the coupon period.

CA-4A.3.30 Supervisory factors (SF_{*i*}) are used, together with aggregation formulas, to convert effective notional amounts into the add-on for each hedging set. Each factor has been calibrated to result in an add-on that reflects the Effective EPE of a single at-the-money linear trade of unit notional and one-year maturity. This includes the estimate of realised volatilities assumed by supervisors for each underlying asset class. The way in which supervisory factors are used within the aggregation formulas varies between asset classes. The supervisory factors are listed in CA-4A.3.51.



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Hedging sets

- CA-4A.3.31** The hedging sets in the different asset classes are defined as follows, except for those described in Paragraphs CA-4A.3.32 and CA-4A.3.33:
- (a) Profit rate Shari'a compliant hedging instruments consist of a separate hedging set for each currency;
 - (b) FX Shari'a compliant hedging instruments consist of a separate hedging set for each currency pair;
 - (c) Credit Shari'a compliant hedging instruments consist of a single hedging set;
 - (d) Equity Shari'a compliant hedging instruments consist of a single hedging set; and
 - (e) Commodity Shari'a compliant hedging instruments consist of four hedging sets defined for broad categories of commodity Shari'a compliant hedging instruments: energy, metals, agricultural and other commodities.
- CA-4A.3.32** Shari'a compliant hedging instruments that reference the basis between two risk factors and are denominated in a single currency⁵⁶ (basis transactions) must be treated within separate hedging sets within the corresponding asset class. There is a separate hedging set⁵⁷ for each pair of risk factors (i.e. for each specific basis). Examples of specific bases include 3-month RFR versus 6-month RFR, 3-month RFR versus 3-month T-Bill, 1-month RFR versus OIS rate, Brent Crude oil versus Henry Hub gas. For hedging sets consisting of basis transactions, the supervisory factor applicable to a given asset class must be multiplied by one-half.
- CA-4A.3.33** Shari'a compliant hedging instruments that reference the volatility of a risk factor (volatility transactions) must be treated within separate hedging sets within the corresponding asset class. Volatility hedging sets must follow the same hedging set construction outlined in Paragraph CA-4A.3.31 (for example, all equity volatility transactions form a single hedging set). Examples of volatility transactions include variance and volatility swaps, options on realised or implied volatility. For hedging sets consisting of volatility transactions, the supervisory factor applicable to a given asset class must be multiplied by a factor of five.

⁵⁶ Shari'a compliant hedging instruments with two floating legs that are denominated in different currencies (such as cross-currency swaps) are not subject to this treatment; rather, they should be treated as non-basis foreign exchange contracts.

⁵⁷ Within this hedging set, long and short positions are determined with respect to the basis.



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Maturity Factors

CA-4A.3.34 The minimum time risk horizon for an unmargined transaction is the lesser of year and remaining maturity of the Shari'a compliant hedging contract for un-margined transactions, floored at 10 business days. Therefore, the calculation of the effective notional for an unmargined transaction includes the following maturity factor, where M_i is the remaining maturity of transaction i , floored at 10 business days:

$$MF_i^{(unmargined)} = \sqrt{\frac{\min\{M_i; 1year\}}{1year}}$$

CA-4A.3.35 The maturity parameter (M_i) is expressed in years but is subject to a floor of 10 business days. Banks should use standard market convention to convert business days into years, and vice versa. For example, 250 business days in a year, which results in a floor of 10/250 years for M_i .

CA-4A.3.36 For margined transactions, the maturity factor is calculated using the margin period of risk (MPOR), subject to specified floors. They must then use the higher of their estimated margin period of risk and the relevant floor in the calculation of the maturity factor (CA-4A.3.38). The floors for the margin period of risk are as follows:

- (a) Ten business days for non-centrally-cleared transactions subject to daily margin agreements.
- (b) The sum of nine business days plus the re-margining period for non-centrally cleared transactions that are not subject daily margin agreements.
- (c) The relevant floors for centrally cleared transactions are prescribed in the capital requirements for bank exposures to central counterparties (see Section CA-4A.4).

CA-4A.3.37 The following are exceptions to the floors on the minimum margin period of risk set out in CA-4A.3.36 above:

- (a) For netting sets consisting of more than 5000 transactions that are not with a central counterparty the floor on the margin period of risk is 20 business days.



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- (b) For netting sets containing one or more trades involving either illiquid collateral, or an OTC Shari'a compliant hedging instrument that cannot be easily replaced, the floor on the margin period of risk is 20 business days⁵⁰.
- (c) If a bank has experienced more than two margin call disputes on a particular netting set over the previous two quarters that have lasted longer than the applicable margin period of risk (before consideration of this provision), then the bank must reflect this history appropriately by doubling the applicable supervisory floor on the margin period of risk for that netting set for the subsequent two quarters.

CA-4A.3.38 The calculation of the effective notional for a margined transaction includes the following maturity factor, where MPOR_i is the margin period of risk appropriate for the margin agreement containing the transaction i subject to the floors set out in CA-4A.3.36 and CA-4A.3.37.

$$MF_i^{(\text{margined})} = \frac{3}{2} \sqrt{\frac{\text{MPOR}_i}{1\text{year}}}$$

The margin period of risk (MPOR_i) is often expressed in days, but the calculation of the maturity factor for margined netting sets references 1 year in the denominator. Banks should use standard market convention to convert business days into years, and vice versa.

Supervisory correlation parameters

CA-4A.3.39 The supervisory correlation parameters (Q_i) only apply to the PFE add-on calculation for equity, credit and Shari'a compliant hedging commodity, and are set out in Paragraph CA-4A.3.51. For these asset classes, the supervisory correlation parameters are derived from a single-factor model and specify the weight between systematic and idiosyncratic components. This weight determines the degree of offset between individual trades, recognising that imperfect hedges provide some,

⁵⁰ "Illiquid collateral" and "OTC Shari'a compliant hedging instruments that cannot be easily replaced" must be determined in the context of stressed market conditions and will be characterised by the absence of continuously active markets where a counterparty would, within two or fewer days, obtain multiple price quotations that would not move the market or represent a price reflecting a market discount (in the case of collateral) or premium (in the case of an OTC Shari'a compliant hedging instruments). Examples of situations where trades are deemed illiquid for this purpose include, but are not limited to, trades that are not marked daily and trades that are subject to specific accounting treatment for valuation purposes (eg OTC Shari'a compliant hedging transactions referencing securities whose fair value is determined by models with inputs that are not observed in the market).

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but not perfect, offset. Supervisory correlation parameters do not apply to profit rate and foreign exchange Shari'a compliant hedging instruments.

Asset Class Level Add-ons

CA-4A.3.40 As set out in CA-4A.3.18, the aggregate add-on for a netting set ($AddOn_{aggregate}$) is calculated as the sum of the add-ons calculated for each asset class within the netting set. The sections that follow set out the calculation of the add-on for each asset class.

Add-on for Profit Rate Shari'a compliant hedging instruments

CA-4A.3.41 The calculation of the add-on for the profit rate Shari'a compliant hedging instruments asset class captures the risk of profit rate Shari'a compliant hedging instruments of different maturities being imperfectly correlated. It does this by allocating trades to maturity buckets, in which full offsetting of long and short positions is permitted, and by using an aggregation formula that only permits limited offsetting between maturity buckets. This allocation of Shari'a compliant hedging instruments to maturity buckets and the process of aggregation (steps 3 to 5 below) are only used in the profit rate Shari'a compliant hedging instruments asset class.



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CA-4A.3.42 The add-on for the profit rate Shari'a compliant hedging instrument asset class (AddOn^{IR}) within a netting set is calculated using the following steps:

(1) Step 1: Calculate the effective notional for each trade in the netting set that is in the profit rate Shari'a compliant hedging instrument asset class. This is calculated as the product of the following three terms:

- (i) the adjusted notional of the trade (d);
- (ii) the supervisory delta adjustment of the trade (δ); and the maturity factor (MF). That is, for each trade i, the effective notional D is calculated as $D_i = d_i * MF_i * \delta_i$.

(2) Step 2: Allocate the trades in the profit rate Shari'a compliant hedging asset class to hedging sets. In the profit rate Shari'a compliant hedging instrument asset class the hedging sets consist of all the Shari'a compliant hedging instruments that reference the same currency.

(3) Step 3: Within each hedging set allocate each of the trades to the following three maturity buckets: less than one year (bucket 1), between one and five years (bucket 2) and more than five years (bucket 3).

(4) Step 4: Calculate the effective notional of each maturity bucket by adding together all the trade level effective notionals calculated in step 1 of the trades within the maturity bucket. Let D^{B1} , D^{B2} and D^{B3} be the effective notionals of buckets 1, 2 and 3 respectively.

(5) Step 5: Calculate the effective notional of the hedging set (EN_{HS}) by using either of the two following aggregation formulas (the latter is to be used if the bank chooses not to recognise offsets between long and short positions across maturity buckets):

$$\text{Offset formula : } EN_{HS} = \left[(D^{B1})^2 + (D^{B2})^2 + (D^{B3})^2 + 1.4 * D^{B1} * D^{B2} + 1.4 * D^{B2} * D^{B3} + 0.6 * D^{B1} * D^{B3} \right]^{\frac{1}{2}}$$

$$\text{No offset formula : } EN_{HS} = |D^{B1}| + |D^{B2}| + |D^{B3}|$$

(6) Step 6: Calculate the hedging set level add-on (AddOn_{HS}) by multiplying the effective notional of the hedging set (EN_{HS}) by the prescribed supervisory factor (SF_{HS}). The prescribed supervisory factor in the profit rate asset class is set at 0.5%, which means that $AddOn_{HS} = EN_{HS} * 0.005$.



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(7) Step 7: Calculate the asset class level add-on ($AddOn^{IR}$) by adding together all of the hedging set level add-ons calculated in step 6:

$$AddOn^{IR} = \sum_{HS} AddOn_{HS}$$

Add-on for Foreign Exchange Shari'a compliant hedging instruments

CA-4A.3.43 The steps to calculate the add-on for the foreign exchange Shari'a compliant hedging instrument asset class are similar to the steps for the profit rate Shari'a compliant hedging instrument asset class, except that there is no allocation of trades to maturity buckets (which means that there is full offsetting of long and short positions within the hedging sets of the foreign exchange Shari'a compliant hedging instrument asset class). The add-on for the foreign exchange Shari'a compliant hedging instruments asset class ($AddOn^{FX}$) within a netting set is calculated using the following steps:

(1) Step 1: Calculate the effective notional for each trade in the netting set that is in the foreign exchange Shari'a compliant hedging instrument asset class. This is calculated as the product of the following three terms: (i) the adjusted notional of the trade (d_i); (ii) the supervisory delta adjustment of the trade (δ_i); and (iii) the maturity factor (MF). That is, for each trade i , the effective notional D_i is calculated as $D_i = d_i * MF_i * \delta_i$.

(2) Step 2: Allocate the trades in the foreign exchange Shari'a compliant hedging instrument asset class to hedging sets. In the foreign exchange Shari'a compliant hedging instrument asset class the hedging sets consist of all the Shari'a compliant hedging instruments that reference the same currency pair.

(3) Step 3: Calculate the effective notional of each hedging set (EN_{HS}) by adding together the trade level effective notionals calculated in step 1.

(4) Step 4: Calculate the hedging set level add-on ($AddOn_{HS}$) by multiplying the absolute value of the effective notional of the hedging set (EN_{HS}) by the prescribed supervisory factor (SF_{HS}). The prescribed supervisory factor in the foreign exchange Shari'a compliant hedging asset class is set at 4%, which means that $AddOn_{HS} = |EN_{HS}| * 0.04$.



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- (5) Step 5: Calculate the asset class level add-on ($AddOn^{FX}$) by adding together all of the hedging set level add-ons calculated in step 5:

$$Addon^{FX} = \sum_{HS} AddOn_{HS}$$

Add-on for Credit Shari'a compliant hedging instruments

CA-4A.3.44 The calculation of the add-on for the credit Shari'a compliant hedging asset class only gives full recognition of the offsetting of long and short positions for Shari'a compliant hedging instruments that reference the same entity (e.g. the same corporate issuer of bonds). Partial offsetting is recognised between Shari'a compliant hedging instruments that reference different entities in step 4 below. The formula used in step 4 is explained further in CA-4A.3.46 to CA-4A.3.47.

CA-4A.3.45 The add-on for the credit Shari'a compliant hedging instrument asset class ($AddOn^{Credit}$) within a netting set is calculated using the following steps:

- (1) Step 1: Calculate the effective notional for each trade in the netting set that is in the credit Shari'a compliant hedging instrument asset class. This is calculated as the product of the following three terms: (i) the adjusted notional of the trade (d); (ii) the supervisory delta adjustment of the trade (δ); and (iii) the maturity factor (MF). That is, for each trade i , the effective notional D_i is calculated as $D_i = d * MF_i * \delta_i$.
- (2) Step 2: Calculate the combined effective notional for all Shari'a compliant hedging instruments that reference the same entity. Each separate credit index that is referenced by Shari'a compliant hedging instruments in the credit Shari'a compliant hedging asset class should be treated as a separate entity. The combined effective notional of the entity (EN_{entity}) is calculated entity by adding together the trade level effective notionals calculated in step 1 that reference that entity.
- (3) Step 3: Calculate the add-on for each entity ($AddOn^{Credit}$) by multiplying the entity combined effective notional for that entity calculated in step 2 by the supervisory factor that is specified for that entity (SF_{entity}). The supervisory entity factors vary according to the credit rating of the entity in the case of single name Shari'a compliant hedging instruments, and whether the index is considered investment grade or non-investment grade in the case of Shari'a compliant hedging instruments that reference an index. The supervisory factors are set out in Paragraph CA-4A.3.51.



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(4) Step 4: Calculate the asset class level add-on ($AddOn^{Credit}$) by using the formula that follows. In the formula the summations are across all entities referenced by the Shari'a compliant hedging instruments, $AddOn_{entity}$ is the add-on amount calculated entity in step 3 for each entity referenced by the Shari'a compliant hedging instruments and ρ_{entity} is the entity supervisory prescribed correlation factor corresponding to the entity.

As set out in Paragraph CA-4A.3.51, the correlation factor is 50% for single entities and 80% for indices.

$$AddOn^{Credit} = \left[\left(\sum_{entity} \rho_{entity} * AddOn_{entity} \right)^2 + \sum_{entity} \left(1 - (\rho_{entity})^2 \right) * (AddOn_{entity})^2 \right]^{\frac{1}{2}}$$

CA-4A.3.46 The formula to recognise partial offsetting in CA-4A.3.45 (4) above, is a single-factor model, which divides the risk of the credit Shari'a compliant hedging instrument asset class into a systematic component and an idiosyncratic component. The entity-level add-ons are allowed to offset each other fully in the systematic component; whereas, there is no offsetting benefit in the idiosyncratic component. These two components are weighted by a correlation factor which determines the degree of offsetting/hedging benefit within the credit Shari'a compliant hedging instruments asset class. The higher the correlation factor, the higher the importance of the systematic component, hence the higher the degree of offsetting benefits.

CA-4A.3.47 A higher or lower correlation does not necessarily mean a higher or lower capital requirement. For portfolios consisting of long and short credit positions, a high correlation factor would reduce the charge. For portfolios consisting exclusively of long positions (or short positions), a higher correlation factor would increase the charge. If most of the risk consists of systematic risk, then individual reference entities would be highly correlated and long and short positions should offset each other. If, however, most of the risk is idiosyncratic to a reference entity, then individual long and short positions would not be effective hedges for each other.



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Add-on for Equity Shari'a compliant hedging instruments

CA-4A.3.48 The calculation of the add-on for the equity Shari'a compliant hedging instruments asset class is very similar to the calculation of the add-on for the credit Shari'a compliant hedging asset class. It only gives full recognition of the offsetting of long and short positions for Shari'a compliant hedging instruments that reference the same entity (e.g. the same corporate issuer of shares). Partial offsetting is recognised between Shari'a compliant hedging instruments that reference different entities in step 4 below.

CA-4A.3.49 The add-on for the equity Shari'a compliant hedging instrument asset class ($AddOn^{Equity}$) within a netting set is calculated using the following steps:

- (1) Step 1: Calculate the effective notional for each trade in the netting set that is in the equity Shari'a compliant hedging instrument asset class. This is calculated as the product of the following three terms: (i) the adjusted notional of the trade (d); (ii) the supervisory delta adjustment of the trade (δ); and (iii) the maturity factor (MF). That is, for each trade i , the effective notional D_i is calculated as $D_i = d * MF_i * \delta_i$.
- (2) Step 2: Calculate the combined effective notional for all Shari'a compliant hedging instruments that reference the same entity. Each separate credit index that is referenced by Shari'a compliant hedging instruments in the credit Shari'a compliant hedging instrument asset class should be treated as a separate entity. The combined effective notional of the entity (EN_{entity}) is calculated entity by adding together the trade level effective notionals calculated in step 1 that reference that entity.
- (3) Step 3: Calculate the add-on for each entity ($AddOn_{entity}$) by multiplying the entity combined effective notional for that entity calculated in step 2 by the supervisory factor that is specified for that entity (SF_{entity}). The supervisory entity factors are set out in Paragraph CA-4A.3.51 and vary according to whether the entity is a single name ($SF = 32\%$) or an index ($SF = 20\%$).
- (4) Step 4: Calculate the asset class level add-on ($AddOn^{Equity}$) by using the formula that follows. In the formula the summations are across all entities referenced by the Shari'a compliant hedging instruments, $AddOn_{entity}$ is the add-on amount calculated entity in step 3 for each entity referenced by the Shari'a compliant hedging instruments and ρ is the entity supervisory prescribed correlation factor corresponding to the entity. As set out in Paragraph CA-4A.3.51, the correlation factor is 50% for single entities and 80% for indices.



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$$AddOn^{Equity} = \left[\left(\sum_{entity} \rho_{entity} * AddOn_{entity} \right)^2 + \sum_{entity} \left(1 - (\rho_{entity})^2 \right) * (AddOn_{entity})^2 \right]^{\frac{1}{2}}$$

- (5) Banks are not permitted to make any modelling assumptions in the calculation of the PFE add-ons and must only use the two values of supervisory factors that are defined for equity Shari'a compliant hedging instruments, one for single entities and one for indices.

Add-on for Commodity Shari'a compliant hedging instruments

CA-4A.3.50 The calculation of the add-on for the commodity Shari'a compliant hedging instrument asset class is similar to the calculation of the add-on for the credit and equity Shari'a compliant hedging instruments asset classes. It recognises the full offsetting of long and short positions for Shari'a compliant hedging instruments that reference the same type of underlying commodity. It also allows partial offsetting between Shari'a compliant hedging instruments that reference different types of commodity, however, this partial offsetting is only permitted within each of the four hedging sets of the commodity Shari'a compliant hedging instrument asset class, where the different commodity types are more likely to demonstrate some stable, meaningful joint dynamics. Offsetting between hedging sets is not recognised (e.g. a forward contract on crude oil cannot hedge a forward contract on corn). The add-on for the commodity Shari'a compliant hedging instrument asset class ($AddOn^{Commodity}$) within a netting set is calculated using the following steps:

- (1) Step 1: Calculate the effective notional for each trade in the netting set that is in the commodity Shari'a compliant hedging instrument asset class. This is calculated as the product of the following three terms: (i) the adjusted notional of the trade (d_i); (ii) the supervisory delta adjustment of the trade (δ_i); and (iii) the maturity factor (MF). That is, for each trade i , the effective notional D_i is calculated as $D_i = d_i * MF_i * \delta_i$.
- (2) Step 2: Allocate the trades in commodity Shari'a compliant hedging instrument asset class to hedging sets. In the commodity Shari'a compliant hedging instrument asset class there are four hedging sets consisting of Shari'a compliant hedging instruments that reference: energy, metals, agriculture and other commodities.



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- (3) Step 3: Calculate the combined effective notional for all Shari'a compliant hedging instruments with each hedging set that reference the same commodity type (e.g. all Shari'a compliant hedging instrument that reference copper within the metals hedging set). The combined effective notional of the commodity type ($EN_{ComType}$) is calculated by adding together the trade level effective notionals calculated in step 1 that reference that commodity type.
- (4) Step 4: Calculate the add-on for each commodity type ($AddOn_{ComType}$) within each hedging set by multiplying the combined effective notional for that commodity calculated in step 3 by the supervisory factor that is specified for that commodity type ($SF_{ComType}$). The supervisory factors are set out in Paragraph CA-4A.3.51 and are set at 40% for electricity Shari'a compliant hedging instruments and 18% for Shari'a compliant hedging instruments that reference all other types of commodities.
- (5) Step 5: Calculate the add-on for each of the four commodity hedging sets ($AddOn_{HS}$) by using the formula that follows. In the formula the summations are across all commodity types within the hedging set, $AddOn_{ComType}$ is the add-on amount calculated in step 4 for each commodity type and $\rho_{ComType}$ is the supervisory prescribed correlation factor corresponding to the commodity type. As set out in Paragraph CA-4A.3.51, the correlation factor is set at 40% for all commodity types.

$$AddOn_{HS} = \left[\left(\sum_{ComType} \rho_{ComType} * AddOn_{ComType} \right)^2 + \sum_{ComType} \left(1 - (\rho_{ComType})^2 \right) * (AddOn_{ComType})^2 \right]^{\frac{1}{2}}$$

- (6) Calculate the asset class level add-on ($AddOn^{Commodity}$) by adding together all of the hedging set level add-ons calculated in step 5:

$$AddOn^{Commodity} = \sum_{HS} AddOn_{HS}$$



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Supervisory factors, Correlations and Supervisory option volatility add-ons Add-on for Commodity Shari'a compliant hedging instruments

CA-4A.3.51 The table below includes the supervisory factors, correlations and supervisory option volatility add-ons for each asset class and subclass:

Asset Class	Sub-class	Supervisory factor	Correlation	Supervisory Option Volatility
Profit Rate		0.50%	N/A	50%
Foreign Exchange		4.0%	N/A	15%
Credit, Single Name	AAA	0.38%	50%	100%
	AA	0.38%	50%	100%
	A	0.42%	50%	100%
	BBB	0.54%	50%	100%
	BB	1.06%	50%	100%
	B	1.6%	50%	100%
	CCC	6.0%	50%	100%
Credit, Index	IG	0.38%	80%	80%
	SG	1.06%	80%	80%
Equity, Single Name		32%	50%	120%
Equity, Index		20%	80%	75%
Commodity	Electricity	40%	40%	150%
	Oil/Gas	18%	40%	70%
	Metals	18%	40%	70%
	Agricultural	18%	40%	70%
	Other	18%	40%	70%

CA-4A.3.52 For a hedging set consisting of basis transactions, the supervisory factor applicable to its relevant asset class must be multiplied by one-half. For a hedging set consisting of volatility transactions, the supervisory factor applicable to its relevant asset class must be multiplied by a factor of five.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4A: SA-CCR

CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

Treatment of Multiple Margin Agreements and Multiple Netting Sets

CA-4A.3.53 If multiple margin agreements apply to a single netting set, the netting set must be divided into sub-netting sets that align with their respective margin agreement. This treatment applies to both RC and PFE components. If a single margin agreement applies to several netting sets, special treatment is necessary because it is problematic to allocate the common collateral to individual netting sets. The replacement cost at any given time is determined by the sum of two terms. The first term is equal to the unmargined current exposure of the bank to the counterparty aggregated across all netting sets within the margin agreement reduced by the positive current net collateral (ie collateral is subtracted only when the bank is a net holder of collateral). The second term is non-zero only when the bank is a net poster of collateral: it is equal to the current net posted collateral (if there is any) reduced by the unmargined current exposure of the counterparty to the bank aggregated across all netting sets within the margin agreement. Net collateral available to the bank should include both VM and NICA. Mathematically, RC for the entire margin agreement is calculated as follows, where:

$$RC_{MA} = \max \left\{ \sum_{NS \in MA} \max \{ V_{NS}; 0 \} - \max \{ C_{MA}; 0 \}; 0 \right\} + \max \left\{ \sum_{NS \in MA} \min \{ V_{NS}; 0 \} - \min \{ C_{MA}; 0 \}; 0 \right\}$$

- (1) Where the summation $NS \in MA$ is across the netting sets covered by the margin agreement (hence the notation)
- (2) V_{NS} is the current mark-to-market value of the netting set NS and C_{MA} is the cash equivalent value of all currently available collateral under the margin agreement

Where a single margin agreement applies to several netting sets, collateral will be exchanged based on mark-to-market values that are netted across all transactions covered under the margin agreement, irrespective of netting sets. That is, collateral exchanged on a net basis may not be sufficient to cover PFE. In this situation, therefore, the PFE add-on must be calculated according to the unmargined methodology. Netting set-level PFEs are then aggregated using the following formula, where $PFE_{NS}^{(unmargined)}$ is the PFE add-on for the netting set NS calculated according to the unmargined requirements:



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CA-4A.3 Standardized Approach for Counterparty Credit Risk (continued)

$$PFE_{MA} = \sum_{NS \in MA} PFE_{NS}^{(unmargined)}$$

Treatment of Collateral taken outside of Netting Sets

CA-4A.3.54 Eligible collateral which is taken outside a netting set, but is available to a bank to offset losses due to counterparty default on one netting set only, should be treated as an independent collateral amount associated with the netting set and used within the calculation of replacement cost when the netting set is unmargined and under when the netting set is margined. Eligible collateral which is taken outside a netting set, and is available to a bank to offset losses due to counterparty default on more than one netting set, should be treated as collateral taken under a margin agreement applicable to multiple netting sets, in which case the treatment under Paragraph CA-4A.3.53 applies. If eligible collateral is available to offset losses on non- Shari'a compliant hedging instruments exposures as well as exposures determined using the SA-CCR, only that portion of the collateral assigned to the Shari'a compliant hedging instruments may be used to reduce the Shari'a compliant hedging instruments exposure.



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CHAPTER	CA-4A: SA-CCR

CA-4A.4 Capital Charge for CCPs

CA-4A.4.1 This Section applies to exposures to central counterparties arising from over-the counter (OTC) Shari'a compliant hedging instruments, exchange-traded Shari'a compliant hedging transactions, securities financing transactions (SFTs) and long settlement transactions. Exposures arising from the settlement of cash transactions (equities, fixed income, spot foreign exchange and spot commodities) are not subject to this treatment. When the clearing member-to-client leg of an exchange-traded Shari'a compliant hedging transaction is conducted under a bilateral agreement, both the client bank and the clearing member are to capitalise that transaction as an OTC Shari'a compliant hedging instrument. This treatment also applies to transactions between lower-level clients and higher-level clients in a multi-level client structure.

CA-4A.4.2 Regardless of whether a central counterparty (CCP) is classified as a qualifying CCP (QCCP), a bank retains the responsibility to ensure that it maintains adequate capital for its exposures. Under the supervisory review process standard (SRP), a bank should consider whether it might need to hold capital in excess of the minimum capital requirements if, for example:

- (1) Its dealings with a CCP give rise to more risky exposures;
- (2) Where, given the context of that bank's dealings, it is unclear that the CCP meets the definition of a QCCP; or
- (3) An external assessment such as an International Monetary Fund Financial Sector Assessment Program has found material shortcomings in the CCP or the regulation of CCPs, and the CCP and/or the CCP regulator have not since publicly addressed the issues identified.

Exposures to Qualifying CCPs: trade exposures

CA-4A.4.3 Where the bank is acting as a clearing member, the bank should assess through appropriate scenario analysis and stress testing whether the level of capital held against exposures to a CCP adequately addresses the inherent risks of those transactions. This assessment will include potential future or contingent exposures resulting from future drawings on default fund commitments, and/or from secondary commitments to take over or replace offsetting transactions from clients of another clearing member in case of this clearing member defaulting or becoming insolvent.



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CHAPTER	CA-4A: SA-CCR

CA-4A.4 Capital Charge for CCPs (continued)

CA-4A.4.4 Where a bank acts as a clearing member of a CCP for its own purposes, a risk weight of 2% must be applied to the bank's trade exposure to the CCP in respect of OTC Shari'a compliant hedging instruments, exchange-traded Shari'a compliant hedging instrument transactions, SFTs and long settlement transactions. Where the clearing member offers clearing services to clients, the 2% risk weight also applies to the clearing member's trade exposure to the CCP that arises when the clearing member is obligated to reimburse the client for any losses suffered due to changes in the value of its transactions if the CCP defaults. The risk weight applied to collateral posted to the CCP by the bank must be determined in accordance with paragraphs CA-4A.4.8 to CA-4A.4.10. The exposure amount of the bank's trade exposure must be calculated for each netting set in accordance with CA-4A.2.1 using a minimum MPOR of 10 days. (See also CM-2.3.47)

CA-4A.4.5 The clearing member will always capitalise its exposure (including potential credit valuation adjustment, or CVA, risk exposure) to clients as bilateral trades, irrespective of whether the clearing member guarantees the trade or acts as an intermediary between the client and the CCP. However, to recognise the shorter close-out period for cleared client transactions, clearing members can capitalize the exposure to their clients applying a margin period of risk of at least five days in SA-CCR. The reduced exposure at default (EAD) should also be used for the calculation of the CVA capital requirement. If a clearing member collects collateral from a client for client cleared trades and this collateral is passed on to the CCP, the clearing member may recognise this collateral for both the CCP-clearing member leg and the clearing member-client leg of the client-cleared trade. Therefore, initial margin posted by clients to their clearing member mitigates the exposure the clearing member has against these clients.

CA-4A.4.6 Subject to the two conditions set out in CA-4A.4.5 below being met, the treatment set out in CA-4A.4.4 (i.e. the treatment of clearing member exposures to CCPs) also applies to the following:

- (a) A bank's exposure to a clearing member where:
 - (i) The bank is a client of the clearing member; and
 - (ii) The transactions arise as a result of the clearing member acting as a financial intermediary (i.e. the clearing member completes an offsetting transaction with a CCP)
- (b) A bank's exposure to a CCP resulting from a transaction with the CCP where:
 - (i) The bank is a client of a clearing member; and
 - (ii) The clearing member guarantees the performance the bank's exposure to the CCP.
- (c) Exposures of lower-level clients to higher-level clients in a multi-level client structure, provided that for all client levels in-between the two conditions in CA-4A.4.5 below are met.



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CHAPTER	CA-4A: SA-CCR

CA-4A.4 Capital Charge for CCPs (continued)

CA-4A.4.7 The two conditions to be met for treatment under CA-4A.4.6 are below:

(1) The offsetting transactions are identified by the CCP as client transactions and collateral to support them is held by the CCP and/or the clearing member, as applicable, under arrangements that prevent any losses to the client due to: (a) the default or insolvency of the clearing member; (b) the default or insolvency of the clearing member's other clients; and (c) the joint default or insolvency of the clearing member and any of its other clients.

Regarding the condition set out in this paragraph:

(a) Upon insolvency of the clearing member, there must be no legal impediment (other than through court order) to transfer the collateral belonging to the client of a defaulting clearing member to the CCP, to one or more other surviving clearing members or to the clients or client's nominee.

(b) The client must have conducted sufficient legal review and have a well-founded basis to conclude in the event of legal challenge, the relevant courts and administrative authorities would find that such arrangements mentioned above would be legal, valid, binding and enforceable under the relevant laws of the relevant jurisdiction(s).

(2) Relevant laws, regulation, rules, contractual, or administrative arrangements provide that the offsetting transactions with the defaulted or insolvent clearing member are highly likely to continue to be indirectly transacted through the CCP, or by the CCP, if the clearing member defaults or becomes insolvent. In such circumstances, the client positions and collateral with the CCP will be transferred at market value unless the client requests to close out the position at market value. Regarding the condition set out in this paragraph, if there is a clear precedent for transactions being ported at a CCP and industry intent for this practice to continue, then these factors must be considered when assessing if trades are highly likely to be ported. The fact that CCP documentation does not prohibit client trades from being ported is not sufficient to say they are highly likely to be ported.



MODULE	CA: Capital Adequacy
CHAPTER	CA-4A: SA-CCR

CA-4A.4 Capital Charge for CCPs (continued)

CA-4A.4.8 Where a client is not protected from losses in the case that the clearing member and another client of the clearing member jointly default or become jointly insolvent, but all other conditions in the preceding paragraph are met, a risk weight of 4% will apply to the client's exposure to the clearing member, or to the higher-level client, respectively.

CA-4A.4.9 Where a bank is a client of the clearing member and the requirements in CA-4A.4.6 to CA-4A.4.7 above are not met, the bank will capitalise its exposure (including potential CVA risk exposure) to the clearing member as a bilateral trade.

CA-4A.4.10 Any assets or collateral posted to the CCP, and where such collateral is included in the definition of trade exposures and the entity holding the collateral is the CCP, the following risk weights apply where the assets or collateral is not held on a bankruptcy-remote basis:

- (a) For banks that are clearing members a risk weight of 2% applies.
- (b) For banks that are clients of clearing members:
 - (i) a 2% risk weight applies if the conditions established in CA-4A.4.6 to CA-4A.4.7 are met; or
 - (ii) a 4% risk weight applies if the conditions in CA-4A.4.8 are met.

Where such collateral is included in the definition of trade exposures, there is no capital requirement for counterparty credit risk exposure (i.e. the related risk weight or EAD is equal to zero) if the collateral is: (a) held by a custodian; and (b) bankruptcy remote from the CCP.

Exposures to Non-Qualifying CCPs

CA-4A.4.11 Banks must assign a risk-weight according to the category of the counterparty to their trade exposure to a non-qualifying CCP in accordance with the standardised approach in Chapter CA-3.



MODULE	CA: Capital Adequacy
CHAPTER	Annex 1: Look Through Approach

Calculation of risk-weighted assets using the LTA

Consider a fund that replicates an equity index. Moreover, assume the following:

- Bank uses the Standardised Approach for credit risk when calculating its capital requirements;
- Bank owns 20% of the shares of the fund;
- The fund holds short term (less than one year) forward contracts that are cleared through a qualifying central counterparty (with a notional amount of \$100); and
- The fund presents the following balance sheet:

Assets

Cash \$20

Government bonds (AAA rated) \$30

Variation margin receivable – forward contracts \$50

Liabilities

Notes payable \$5

Equity

Shares \$95

Balance sheet exposures of \$100 will be risk weighted according to the risk weights applied for cash (RW=0%), government bonds (RW=0%), and centrally-cleared equity forward positions (RW=2%). The underlying risk weight for equity exposures (RW=100%) is applied to the notional amount of the forward contracts and there is a charge for counterparty credit risk. There is no CVA charge assessed since the forward contracts are cleared through a central counterparty.

The leverage of the fund is $100/95 \approx 1.05$.

Therefore, the risk-weighted assets for the bank's equity investment in the fund are calculated as follows:

$$\frac{(RWA_{cash} + RWA_{bonds} + RWA_{underlying} + RWA_{forward} + RWA_{CCR}) * Leverage * Equity Investment}{Total Assets fund} =$$

$$((\$20*0\% + \$30*0\% + \$100*100\% + \$50*2\% + \$100*6\%*2\%)/100) * 1.05 * (20\%*95) = \$20.17$$

MODULE	CA: Capital Adequacy
CHAPTER	Annex 1: Look Through Approach

Calculation of risk-weighted assets using the MBA

Consider a fund with assets of \$100, where it is stated in the mandate that the fund replicates an equity index. In addition to being permitted to invest its assets in either cash or equities, the mandate allows the fund to take long positions in equity index futures up to a maximum nominal amount equivalent to the size of the fund's balance sheet (\$100). This means that the total on balance sheet and off-balance sheet exposures of the fund can reach \$200. Consider also that a maximum financial leverage of 1.1 applies according to the mandate. The bank holds 20% of the shares of the fund, which represents an investment of \$18.18.

First, the on-balance sheet exposures of \$100 will be risk weighted according to the risk weights applied for equity exposures ($RW=100\%$), i.e. $RWA_{\text{on-balance}} = \$100 * 100\% = \$100$.

Second, we assume that the fund has exhausted its limit on derivative positions, ie \$100 notional amount, which would be weighted with the risk weight associated with the underlying of the derivative position, which in this example is 100% for publicly-traded equity holdings. The total risk-weighted assets related to the maximum notional amount underlying the derivative positions are hence $RWA_{\text{underlying}} = \$100 * 100\% = \$100$.

Third, we would calculate the counterparty credit risk associated with the derivative contract. If we do not know the replacement cost related to the futures contract, we would approximate it by the maximum notional amount, i.e. \$100 and also calculate the add-on by applying a 15% conversion factor, resulting in an exposure amount of \$115. Assuming the futures contract is cleared through a qualifying CCP, a risk weight of 2% applies, so that $RWA_{\text{CCR}} = \$115 * 2\% = \2.3 . There is no CVA charge assessed since the futures contract is cleared through a central counterparty.

The RWA of the fund is hence obtained by adding $RWA_{\text{on-balance}}$, $RWA_{\text{underlying}}$ and RWA_{CCR} , ie \$202.3.

Leverage adjustment

The RWA (\$202.3) will be divided by the total assets of the fund (\$100) resulting in an average risk-weight of 202.3%. The average risk-weight is then scaled up by a factor of 1.1 to reflect financial leverage = $202.3\% * 1.1 = 222.53\%$. Finally, as the bank invested \$18.18 in the equity of the fund, its total RWAs associated with its equity investment amount to $\$18.18 * 222.53\% = \40.46 .



MODULE	CA: Capital Adequacy
CHAPTER	Annex 1: Look Through Approach

Calculation of the leverage adjustment

Consider a fund with assets of \$100 that invests in corporate debt. Assume that the fund is highly levered with equity of \$5 and debt of \$95. Such a fund would have financial leverage of $100/5=20$.

Consider the following two cases:

Case 1: Fund specialises in low-rated corporate debt

Assets

Cash \$ 10

A+ to A- bonds \$ 20

BBB+ to BB- bonds \$ 30

Below BB- bonds \$ 40

The average risk weight of the fund is $(\$10*0\% + \$20*50\% + \$30*100\% + \$40*150\%)/\$100 = 100\%$. The financial leverage of 20 would result in a risk weight of 2000% for the banks' investment in this highly levered fund, however, this is capped at a conservative risk weight of 1,250%.

Case 2: Fund specialises in high-rated corporate debt

Assets

Cash \$ 5

AAA to AA- bonds \$ 75

A+ to A- bonds \$ 20

The average risk weight of the fund is $(\$5*0\% + \$75*20\% + \$20*50\%)/\$100 = 25\%$. The financial leverage of 20 results in a risk weight of 500%.

The above example illustrates that the rate at which the 1,250% cap is reached depends on the underlying riskiness of the portfolio (as judged by the average risk weight) as captured by Basel II Standardised Approach risk weights or the IRB methods. Therefore, for a "risky" portfolio (100% average risk weight), the 1,250% limit is reached fairly quickly with a leverage of 12.5x, while for a "low risk" portfolio (25% average risk weight) this limit is reached at a leverage of 50x.



MODULE	CA: Capital Adequacy
CHAPTER	Annex 2: Examples of Standardised Approach for Counterparty Credit Risk

Instrument	M_i	S_i	E_i
Interest rate or credit default swap maturing in 10 years	10 years	0	10 years
10-year interest rate swap, forward starting in 5 years	15 years	5 years	15 years
Forward rate agreement for time period starting in 6 months and ending in 12 months	1 year	0.5 year	1 year
Cash-settled European swaption referencing 5-year interest rate swap with exercise date in 6 months	0.5 year	0.5 year	5.5 years
Physically-settled European swaption referencing 5-year interest rate swap with exercise date in 6 months	5.5 years	0.5 year	5.5 years
10-year Bermudan swaption with annual exercise dates	10 years	1 year	10 years
Interest rate cap or floor specified for semi-annual interest rate with maturity 5 years	5 years	0	5 years
Option on a bond maturing in 5 years with the latest exercise date in 1 year	1 year	1 year	5 years
3-month Eurodollar futures that matures in 1 year	1 year	1 year	1.25 years
Futures on 20-year treasury bond that matures in 2 years	2 years	2 years	22 years
6-month option on 2-year futures on 20-year treasury bond	2 years	2 years	22 years



MODULE	CA: Capital Adequacy
CHAPTER	Annex 3: Examples of Loan Splitting Approach

As per the “Loan Splitting Approach” in respect of residential real estate mortgages where junior liens are considered, Banks are required to split the exposures in two parts where 20% RW will be applied to first part and RW based on the type of counterparty will be applied on the second part. The 20% RW is to be applied on the part of exposure covered by 55% of the property value and the RW based on the counterparty type is to be applied on the residual part of the exposure.

I. The below example denotes the calculation where there are liens on the property that are not held by the bank:

Financing	Property Value (PV)	PV At 55%	Pari Passu Lien Value	Amount to be RW at 20%	Amount to be RW as per Counterparty
90,000	150,000	82,500	20,000	62,500	27,500

In the above calculation, the bank is having residential real estate exposure with junior lien on a property worth 100,000. The value of the senior lien is 20,000. To determine the application of 20% RW, the value of the first lien is subtracted from 55% of the property value, i.e. $(\max((82,500 - 20,000), 0))$. For the application of RW on the residual value $(90,000 - 62,500)$, Banks are required to apply the respective RW as per the counterparty. In the above example, the RW applied is 75% since it is a residential real estate.

II. The below example illustrates the calculation where the liens rank Pari Passu

Financed Amount	Property Value	PV At 55%	Pari Passu Lien Value	Amount to be RW at 20%	Amount to be RW as per Counterparty
90,000	150,000	82,500	20,000	67,500	22,500

In the above calculation, the bank is having residential real estate exposure where the liens rank Pari Passu. Here, the calculation for the application of 20% RW is based on the total value of liens that rank Pari Passu. This is done by subtracting the value of other Pari Passu liens, assuming 10,000 as the amount, from 55% of the Property Value, i.e. $(62,500 - (62,500 * (20,000 / (20,000 + 90,000))))$. Like the first example, the application of 75% RW is on the residual value of the loan, i.e. $(90,000 - 67,500)$.



GLOSSARY

“Regulatory real estate” exposures consist of:

- 1) “Regulatory residential real estate” exposures that are not “materially dependent on cash flows generated by the property”.
- 2) “Regulatory residential real estate” exposures that are “materially dependent on cash flows generated by the property”.
- 3) “Regulatory commercial real estate” exposures that are not “materially dependent on cash flows generated by the property”.
- 4) “Regulatory commercial real estate” exposures that are “materially dependent on cash flows generated by the property”.

CONSULTATION