



MODULE	CA: Capital Adequacy
CHAPTER	CA-5 Market Risk

## CA-5.1 Trading Book

### *Definition of the Trading Book and Introduction*

CA-5.1.1 "Market risk" is defined as the risk of losses in on- and off-balance sheet positions arising from movements in market prices. The risks that are subject to the market risk capital requirement are:

- (a) Equity position risk in the trading book;<sup>35</sup>
- (b) Benchmark risk in trading positions in Sukuk (see Chapter CA-8);
- (c) Foreign exchange risk; and
- (d) Commodities and inventory risk.

#### CA-5.1.2

A trading book consists of positions in financial instruments, foreign exchange and commodities and inventories held either with trading intent or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must be free of any restrictions on their tradability. In addition, positions must be frequently and accurately valued, and the portfolio must be actively managed. Open equity stakes in Shari'a compliant hedge funds, private equity investments and real estate holdings do not meet the definition of the trading book, owing to significant constraints on the ability of banks to liquidate these positions and value them reliably on a daily basis. Such holdings must therefore be held in the Islamic bank licensee's banking book and treated as equity holding in corporates, except real estate which must be treated as per Paragraph CA-4.2.27 and Chapter CA-9 of this Module.

CA-5.1.3 A financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments include both primary financial instruments (or cash instruments) and forward financial instruments.

CA-5.1.4 A financial asset is any asset that is cash, the right to receive cash or another financial asset; or the contractual right to exchange financial assets on potentially favourable terms, or an equity instrument. A financial liability is the contractual obligation to deliver cash or another financial asset or to exchange financial liabilities under conditions that are potentially unfavourable.

<sup>35</sup> An equity position treated under "equity exposures in the banking book" is dealt with under the credit risk, as set out in Paragraphs CA-4.8.7 to CA-4.8.15.



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## CA-5.1 Trading Book (continued)

### CA-5.1.5

Trading positions are defined as those positions of a bank that are held for short -term resale and/or with the intent of benefiting from actual or expected short-term price movements or to lock in arbitrage profits, and may include for example proprietary positions, positions arising from client servicing (e.g. matched principal broking) and market making. Islamic bank licensees must have clearly outlined policies and procedures for including or not including any position in the trading book for purposes of calculating their regulatory capital requirement, to ensure compliance with the criteria for trading book set forth in this section and taking into account the Islamic bank licensee's risk management capabilities and practices. Such policies must be commensurate with the Islamic bank licensee's capabilities and capacities for risk management. The Islamic bank licensee must have well-documented procedures to comply with stated policies, which must be fully documented and subject to periodic internal audit.

#### *Policies and Procedures*

### CA -5.1.6

Policies and procedures must, at a minimum, address the following:

- (a) The activities the Islamic bank licensee considers to be trading and as constituting part of the trading book for regulatory capital purposes;
- (b) The extent to which an exposure can be marked-to-market daily by reference to an active, liquid two-way market;
- (c) For exposures that are marked-to-model, the extent to which the Islamic bank licensee can:
  - (i) Identify the material risks of the exposure;
  - (ii) Hedge (Sharia compliant hedging) the material risks of the exposure and the extent to which hedging instruments would have an active, liquid two-way market; and
  - (iii) Derive reliable estimates for the key assumptions and parameters used in the model;
- (d) The extent to which the Islamic bank licensee can and is required to generate valuations for the exposure that can be validated by external parties in a consistent manner;
- (e) The extent to which legal restrictions or other operational requirements would impede the Islamic bank licensee's ability to effect an immediate liquidation of the exposure;
- (f) The extent to which the Islamic bank licensee is required to, and can, actively risk manage the exposure within its trading operations; and



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- (g) The criteria for and the extent to which the Islamic bank licensee may transfer risk or exposures between the banking and the trading books.

The list above is not intended to provide a series of tests that a product or group of related products must pass to be eligible for inclusion in the trading book. Rather, the list provides a minimum set of key points that must be addressed by the policies and procedures for overall management of an Islamic bank licensee's trading book.

### CA-5.1.7

The basic requirements for positions eligible to receive trading book capital treatment are:

- (a) Clearly documented trading strategy for the position/instrument or portfolios, approved by senior management (which would include expected holding horizon);
- (b) Clearly defined policies and procedures for the active management of the position, which must include the following points:
  - (i) Positions are managed on a trading desk;
  - (ii) Position limits are set and monitored for appropriateness;
  - (iii) Dealers have the autonomy to enter into/manage the position within agreed limits and according to the agreed strategy;
  - (iv) Positions are marked to market at least daily and when marking to model the parameters must be assessed on a daily basis;
  - (v) Positions are reported to senior management as an integral part of the Islamic bank licensee's risk management process; and
  - (vi) Positions are actively monitored with reference to market information sources (assessment must be made of the market liquidity or the ability to hedge positions or the portfolio risk profiles). This includes assessing the quality and availability of market inputs to the valuation process, level of market turnover, sizes of positions traded in the market, etc.; and
- (c) Clearly defined policy and procedures to monitor the positions against the Islamic bank licensee's trading strategy including the monitoring of turnover and stale positions in the Islamic bank licensee's trading book.



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## CA-5.1 Trading Book (continued)

### *Prudent Valuation Guidance for the Trading book and the Banking Book*

CA-5.1.8 This Section provides Islamic bank licensees with guidance on prudent valuation for positions that are accounted for at fair value, whether they are in the trading book or in the banking book. This guidance is especially important for positions without actual market prices or observable inputs to valuation, as well as less liquid positions which, although they will not be excluded from the trading book solely on grounds of lesser liquidity, raise CBB's concerns about prudent valuation.

#### CA-5.1.8.A

**Positions in the Islamic bank licensee's own eligible regulatory capital instruments are deducted from capital. Positions in other banks', securities firms', and other financial entities' eligible regulatory capital instruments, as well as intangible assets, are subject to the same treatment as that set down by the CBB for such assets held in the banking book (see Chapter CA-2 of this Module).**

CA-5.1.9 The valuation guidance set forth below is not intended to require Islamic bank licensees to change valuation procedures for financial reporting purposes. The CBB will assess an Islamic bank licensee's valuation procedures for consistency with this guidance. One factor in the CBB's assessment of whether an Islamic bank licensee must take a valuation adjustment for regulatory purposes under Paragraphs CA-5.1.18.A to CA-5.1.20 is the degree of consistency between the Islamic bank licensee's valuation procedures and these guidelines.

#### CA-5.1.9A

**A framework for prudent valuation practices must at a minimum include the requirements outlined in this Section.**



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## CA-5.1 Trading Book (continued)

### *Systems and Controls*

#### CA-5.1.10

Islamic bank licensees must have robust systems and controls, with documented policies and procedures for the valuation process. These systems must be integrated with the Islamic bank licensees' enterprise risk management processes and must have the ability to give confidence to the CBB and management regarding the reliability of the valuations. These policies and procedures must include: (a) clearly defined responsibilities of the personnel and departments involved in the valuation; (b) sources of market information, and review of their reliability; (c) frequency of independent valuations; (d) timing of closing prices; (e) procedures for adjusting valuations between periods; (f) ad-hoc verification procedures; and (g) reporting lines for the valuation department that must be independent of the front office. Such policies and procedures must also take into consideration compliance with IFRS or AAOIFI accounting standards as applicable and CBB requirements.

### *Valuation Methodologies*

#### *Marking to Market*

#### CA-5.1.11

Marking-to-market is at least the daily valuation of positions at readily available close out prices that are sourced independently. Examples of readily available close out prices include exchange prices, screen prices, or quotes from several independent reputable brokers.

#### CA-5.1.12

Islamic bank licensees must mark-to-market as much as possible. The more prudent side of bid/offer must be used unless the bank is a significant market maker in a particular position type and it can close out at mid-market. Islamic bank licensees must maximise the use of relevant observable inputs and minimise the use of unobservable inputs when estimating fair value using a valuation technique. However, observable inputs or transactions may not be relevant, such as in a forced liquidation or distressed sale, or transactions may not be observable, such as when markets are inactive. In such cases, the observable data must be considered, but may not be determinative.



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## CA-5.1 Trading Book (continued)

### *Marking to Model*

#### CA-5.1.13

Only where marking-to-market is not possible must Islamic bank licensees mark-to-model, but this must be demonstrated to be prudent. Marking-to-model is defined as any valuation which has to be benchmarked, extrapolated or otherwise calculated from a market input.

#### CA-5.1.14

When marking to model, an extra degree of conservatism is appropriate. The CBB will consider the following in assessing whether a mark-to-model valuation is prudent:

- (a) Senior management should be aware of the elements of the trading book or of other fair-valued positions which are subject to mark to model and should understand the materiality of the uncertainty this creates in the reporting of the risk/performance of the business;
- (b) Market inputs should be sourced, to the extent possible, in line with market prices (as discussed above). The appropriateness of the market inputs for the particular position being valued should be reviewed regularly;
- (c) Where available, generally accepted valuation methodologies for particular products should be used as far as possible;
- (d) Where the model is developed by the licensee itself, it should be based on appropriate assumptions, which have been assessed and challenged by suitably qualified parties independent of the development process. The model should be developed or approved independently of the front office. It should be independently tested. This includes validating the mathematics, the assumptions and the software implementation;
- (e) There should be formal change control procedures in place and a secure copy of the model should be held and periodically used to check valuations;
- (f) Risk management should be aware of the weaknesses of the models used and how best to reflect those in the valuation output;
- (g) The model should be subject to periodic review to determine the accuracy of its performance (e.g. assessing continued appropriateness of the assumptions, analysis of P&L versus risk factors, comparison of actual close out values to model outputs); and
- (h) Valuation adjustments should be made as appropriate, for example, to cover the uncertainty of the model valuation (see also valuation adjustments in Paragraphs CA-5.1.7 to CA-5.1.20).



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## CA-5.1 Trading Book (continued)

### *Independent Price Verification*

#### CA-5.1.15

Independent price verification is distinct from daily mark-to-market. It is the process by which market prices or model inputs are regularly verified for accuracy. While daily marking-to-market may be performed by dealers, verification of market prices or model inputs must be performed by a unit independent of the dealing room, at least monthly (or, depending on the nature of the market/trading activity, more frequently). It need not be performed as frequently as daily mark-to-market, since the objective, i.e. independent, marking of positions, should reveal any error or bias in pricing, which should result in the elimination of inaccurate daily marks.

#### CA-5.1.16

Independent price verification entails a higher standard of accuracy in that the market prices or model inputs are used to determine profit and loss figures, whereas daily marks are used primarily for management reporting in between reporting dates. For independent price verification, where pricing sources are more subjective, e.g. only one available broker quote, prudent measures such as valuation adjustments may be appropriate.

### *Valuation Adjustments*

#### CA-5.1.17

As part of their procedures for marking to market, Islamic bank licensees must establish and maintain procedures for considering valuation adjustments. Islamic bank licensees using third-party valuations must consider whether valuation adjustments are necessary. Such considerations are also necessary when marking to model.

#### CA-5.1.18

Islamic bank licensees must consider the following valuation adjustments/reserves at a minimum: unearned profit, close-out costs, operational risks, early termination, investing and funding costs, and future administrative costs and, where appropriate, model risk.



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## CA-5.1 Trading Book (continued)

### *Adjustment to the Current Valuation of Less Liquid Positions for Regulatory Capital Purposes*

**CA-5.1.18.A** Islamic bank licensees must establish and maintain procedures for judging the necessity of and calculating an adjustment to the current valuation of less liquid positions for regulatory capital purposes. This adjustment may be in addition to any changes to the value of the position required for financial reporting purposes and must be designed to reflect the illiquidity of the position. Islamic bank licensees must consider the need for an adjustment to a position's valuation to reflect current illiquidity whether the position is marked to market using market prices or observable inputs, third-party valuations or marked to model.

**CA-5.1.19** Bearing in mind that the underlying 10-day assumptions made about liquidity in the market risk capital charge may not be consistent with the Islamic bank licensee's ability to sell or hedge out less liquid positions, where appropriate, Islamic bank licensees must take an adjustment to the current valuation of these positions, and review their continued appropriateness on an on-going basis. Reduced liquidity may have arisen from market events. Additionally, close-out prices for concentrated positions and/or stale positions must be considered in establishing the adjustments. Islamic bank licensees must consider all relevant factors when determining the appropriateness of the adjustments for less liquid positions. These factors may include, but are not limited to, the amount of time it would take to hedge out the position/risks within the position, the average volatility of bid/offer spreads, the availability of independent market quotes (number and identity of market makers), the average and volatility of trading volumes (including trading volumes during periods of market stress), market concentrations, the aging of positions, the extent to which valuation relies on marking-to-model, and the impact of other model risks not included in Paragraph CA-5.1.18.A.

**CA-5.1.20** The adjustment to the current valuation of less liquid positions made under Paragraph CA-5.1.19 must impact Tier 1 regulatory capital and may exceed those valuation adjustments made under financial reporting standards and Paragraphs CA-5.1.17 and CA-5.1.18.



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## CA-5.2 Price Risk

**CA-5.2.1** The capital charge for price risk is 15% of the amount of the position (carrying value).

**CA-5.2.2** For commodities exposure in Salam, the capital charge is computed at 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. Net positions in commodities are calculated as explained in Section CA-5.6. In case of Istisna'a (see Paragraph CA-3.4.24) 15% capital charge on net long or short position plus 3% capital charge on gross positions must apply.



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### CA-5.3 Equity Position Risk

#### *Introduction*

CA-5.3.1 The minimum capital requirement for equities is expressed in terms of two separately calculated charges, one relating to the “specific risk” of holding a long position in an individual equity, and the other to the “general market risk” of holding a long position in the market as a whole. Where the bank has invested in shares/units of equity funds on Mudaraba financing and the bank has direct exposures in the equities which are traded in a recognised stock exchange, the shares/units are considered to be subject to equity risk. The equity position would be considered to be the net asset value as at the reporting date.

#### *Specific Risk Calculation*

CA-5.3.2 Specific risk is defined as the Islamic bank licensee’s gross equity positions (i.e. the sum of all equity positions) and is calculated for each country or equity market. For each national market in which the Islamic bank licensee holds equities, it must sum the market values of its individual net positions irrespective of whether they are long or short positions, to produce the overall gross equity position for that market.

CA-5.3.3 The capital charge for specific risk is 8%.

CA-5.3.4 [This Paragraph was deleted in January 2012]

#### *General Risk Calculation*

CA-5.3.5 The general market risk is calculated by first determining the difference between the sum of the long positions and the sum of the short positions (i.e. the overall net position) in each national equity market. In other words, to calculate the general market risk, the Islamic bank licensee must sum the market value of its individual net positions for each national market, taking into account whether the positions are long or short.

CA-5.3.6 The general market equity risk measure is 8% of the overall net position in each national market.



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#### CA-5.4 Sukuk

##### CA-5.4.1

The minimum capital requirement for Sukuk positions in the trading book is expressed in terms of two separately calculated charges, one applying to the “specific risk” of each security, and the other to the profit rate risk in the portfolio (termed “general market risk”).

*Specific Risk for Sukuk (or other equivalent Shari’a compliant financial instruments)*

##### CA-5.4.2

The capital charge for specific risk covers the possibility of an adverse movement in the price of a *Sukūk* held for trading due to factors related to an individual issuer. Offsetting is restricted only to matched positions in the identical issues. No offsetting will be permitted between different issues even if the issuer is the same, since differences in features of *Sukūk* with respect to profit rates, liquidity and call features, etc. would imply that prices may diverge in the short run. In the case of Sukuk in the trading book, the specific risk charge must be provided on the RW of the issue and the term to maturity of the Sukuk, as follows:

Categories	External credit assessment	Specific risk capital charge
Government (including GCC governments)	AAA to AA-	0%
	A+ to BBB-	0.25% (residual term to final maturity 6 months or less) 1.00% (residual term to final maturity greater than 6 and up to and including 24 months)
	BB+ to B-	8.00%
	Below B-	12.00%
	Unrated	8.00%
Investment Grade		0.25% (residual term to final maturity 6 months or less) 1.00% (residual term to final maturity greater than 6 and up to and including 24 months) 1.60% (residual term to final maturity exceeding 24 months)
	BB+ to BB-	8.00%
	Below BB-	12.00%
Other	Unrated	12.00%



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#### CA-5.4 Sukuk (continued)

##### *General Market Risk for Sukuk – Maturity Method*

##### CA-5.4.3

The general market risk must be provided on the residual term to maturity or to the next repricing date, using either a simplified form of the Maturity Method on the net positions in each time-band in accordance with the table below or the Duration Method shown in Paragraph CA-5.4.3A:

Residual term to maturity	RW
1 month or less	0.00%
1-3 months	0.20%
3-6 months	0.40%
6-12 months	0.70%
1-2 years	1.25%
2-3 years	1.75%
3-4 years	2.25%
4-5 years	2.75%
5-7 years	3.25%
7-10 years	3.75%
10-15 years	4.50%
15-20 years	5.25%
>20 years	6.00%

##### *General Market Risk for Sukuk – Duration Method*

##### CA-5.4.3A

With the CBB's prior written approval, an Islamic bank licensee with the necessary capability may use the more accurate "duration" method. This method calculates the price sensitivity of each position of Sukuk held separately. This method must be used consistently by an Islamic bank licensee, unless a change is approved by the CBB. The steps involved in the calculation using this method are outlined in Paragraphs CA-5.4.3B to CA-5.4.3D.



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#### CA-5.4 Sukuk (continued)

##### CA-5.4.3B

Calculate the price sensitivity of each Sukuk position (called "weighted positions") in terms of a change in profit rates between 0.6 and 1 percentage points depending on the maturity of the Sukuk and subject to supervisory guidance. Slot the resulting sensitivity measures into a duration-based ladder with 13 time bands as set out in Table 1 below. Subject long positions in each time band to a 5% vertical disallowance on the smaller of offsetting positions (i.e. a matched position) in each time band.

Table 1 Duration Method: Time Bands and Assumed Changes in Yield

Zone	Time Band (Expected profit rate $\geq 3\%$ )	Time Band (Expected profit rate $< 3\%$ )	Assumed Change in Expected Yield (%)
Zone 1	1 month or less	1 month or less	1.00
	>1–3 months	>1–3 months	1.00
	>3–6 months	>3–6 months	1.00
	>6–12 months	>6–12 months	1.00
Zone 2	>1–2 years	>1.0–1.9 years	0.90
	>2–3 years	>1.9–2.8 years	0.80
	>3–4 years	>2.8–3.6 years	0.75
Zone 3	>4–5 years	>3.6–4.3 years	0.75
	>5–7 years	>4.3–5.7 years	0.70
	>7–10 years	>5.7–7.3 years	0.65
	>10–15 years	>7.3–9.3 years	0.60
	>15–20 years	>9.3–10.6 years	0.60
	>20 years	>10.6–12 years	0.60
		>12–20 years	0.60
		>20 years	0.60



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#### CA-5.4 Sukuk (continued)

##### CA-5.4.3C

From the results of the above calculations, two sets of weighted positions – the net long position in each time band – are produced. The maturity ladder is then divided into three zones, as follows: zone 1, 0–1 year; zone 2, >1–4 years; and zone 3, >4 years. Islamic bank licensees are required to conduct two further rounds of offsetting: (i) between the net time band positions in each of the three zones; and (ii) between the net positions across the three different zones (i.e. between adjacent zones and non-adjacent zones). The residual net positions are then carried forward and offset against opposite positions in other zones when calculating net positions between zones 2 and 3, and 1 and 3. The offsetting is subject to a scale of disallowances (horizontal disallowances) expressed as a fraction of matched position, subject to a second set of disallowance factors (Table 2).

Table 2 Duration Method: Horizontal Disallowances

Zone	Time Band	Within the Zone	Between Adjacent Zones	Between Zones 1 and 3
Zone 1	<=1 month	40%	40%	100%
	>1–3 months			
	>3–6 months			
	>6–12 months			
Zone 2	>1–2 years	30%	40%	
	>2–3 years			
	>3–4 years			
Zone 3	>4–5 years	30%		
	>5–7 years			
	>7–10 years			
	>10–15 years			
	>15–20 years			
	>20 years			



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#### CA-5.4 Sukuk (continued)

##### CA-5.4.3D

The general market risk capital charge is the aggregation of three charges: net position, vertical disallowances and horizontal disallowances (Table 3 below).

Table 3 General Risk Capital Charge Calculation

The sum of:		
Net position	Net long weighted position	x100%
Vertical disallowances	Matched weighted positions (i.e. the smaller of the absolute value of the short and long positions with each time band) in all maturity bands	x 10%
Horizontal disallowances	Matched weighted positions within Zone 1	x 40%
	Matched weighted positions within Zone 2	x 30%
	Matched weighted positions within Zone 3	x 30%
	Matched weighted positions between Zones 1 & 2	x 40%
	Matched weighted positions between Zones 2 & 3	x 40%
	Matched weighted positions between Zones 1 & 3	x100%

CA-5.4.4 In the case of equity investments made by means of a Musharakah or a Mudarabah contract where the underlying assets are commodities, the market risk provisions for commodities, as described in Sections CA-5.5, CA-3.6 (Musharakah) and CA-3.7 (Mudarabah) are applicable.



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## CA-5.5 Foreign Exchange Risk

### *Introduction*

CA-5.5.1 This Section describes the standardised method for calculation of the Islamic bank licensee's foreign exchange risk, and the capital required against that risk. An Islamic bank licensee which holds net open positions (whether long or short) in foreign currencies is exposed to the risk that exchange rates may move against it.

CA-5.5.2 The measurement of the foreign exchange risk involves, as a first step, the calculation of the net open position in each individual currency including gold and silver using the closing mid-market spot rate and as a second step, the measurement of the risks inherent in the bank's mix of assets and liabilities positions in different currencies.

**CA-5.5.3 An Islamic bank licensee that holds net open positions (whether assets or liabilities) in foreign currencies is exposed to the risk that exchange rates may move against it. The open positions may be either trading positions or, simply, exposures caused by the Islamic bank licensee's overall assets and liabilities.**

**CA-5.5.4 The open positions and the capital requirements are calculated at the closing mid-market spot rate with reference to the entire business (i.e. the banking and trading books).**

**CA-5.5.5 The open positions are calculated with reference to the Islamic bank licensee's base currency, which will be either Bahraini Dinars (BD) or United States dollars (USD).**

**CA-5.5.6 In addition to foreign exchange risk, positions in foreign currencies may be subject to counterparty credit risk which must be treated separately as shown in Appendix CA-2. For the purposes of calculating "Foreign Exchange Risk" only, positions in those GCC currencies which are pegged to US\$, is treated as positions in US\$.**

### *De Minimis Exemptions*

CA-5.5.7 An Islamic bank licensee doing negligible business in foreign currencies and which does not take foreign exchange positions for its own account may, at the discretion of the CBB and as evidenced by the CBB's prior written approval, be exempted from calculating the capital requirements on these positions. The CBB is likely to be guided by the following criteria in deciding to grant exemption to any Islamic bank licensee:



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## CA-5.5 Foreign Exchange Risk (continued)

- (a) The Islamic bank licensee's holdings or taking of positions in foreign currencies, including gold and/or silver, defined as the greater of the sum of the gross asset positions and the sum of the gross liability position in all foreign positions and gold and/or silver, does not exceed 100% of its Total Capital as defined in CA-1.1.2 and subject to any limits described in section CA-2.2; and
- (b) The Islamic bank licensee's overall net open position, as defined in Paragraph CA-5.5.15 does not exceed 2% of its Total Capital described in Subparagraph CA-5.5.7(a).

CA-5.5.8 The criteria listed above are only intended to be guidelines, and a bank will not automatically qualify for exemptions upon meeting them. Islamic bank licensees doing negligible foreign currency business, which do not take foreign exchange positions for the Islamic bank licensee's own account, and wish to seek exemption from foreign exchange risk capital requirements, should submit an application to the CBB, in writing. The CBB will have the discretion to grant such exemptions. The CBB may also, at its discretion, fix a minimum capital requirement for an Islamic bank licensee that is exempted from calculating its foreign exchange risk capital requirement, to cover the risks inherent in its foreign currency business.

CA-5.5.9 The CBB may, at a future date, revoke an exemption granted to an Islamic bank licensee, if the CBB is convinced that the conditions on which the exemption was granted no longer exist.

### *Calculation of the Net Open Position in a Single Currency*

#### CA-5.5.10

An Islamic bank licensee's exposure to foreign exchange risk in any currency is its net open position in that currency, which is calculated by summing the following items:

- (a) The net spot position in the concerned currency (i.e. all assets items less all liability items, including accrued profit, other income and expenses, denominated in the currency in question; assets are included gross of provisions for bad and doubtful debts, except in cases where the provisions are maintained in the same currency as the underlying assets);
- (b) The net position of a binding unilateral promise by the Islamic bank licensee to buy and/or sell the concerned currency on a specified future date (that are not included in the spot open position);
- (c) Guarantees and similar off-balance sheet contingent items that are certain to be called and are likely to be irrecoverable where the provisions, if any, are not maintained in the same currency;
- (d) Profits (i.e. the net value of income and expense accounts) held in the currency in question; and



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## CA-5.5 Foreign Exchange Risk (continued)

- (e) Specific provisions held in the currency in question where the underlying asset is in a different currency, net of assets held in the currency in question where a specific provision is held in a different currency.

### CA-5.5.11

For calculating the net open position in gold or silver, the Islamic bank licensee must first express the net position (spot plus forward) in terms of the standard unit of measurement (i.e. ounces or grams) and then convert it at the current spot rate into the reporting or base currency.

### CA-5.5.12

Where gold or silver are part of a forward contract (i.e. quantity of gold or silver to be received or to be delivered), any foreign currency exposure from the other leg of the contract must be reported.

### *Structural Positions*

#### CA-5.5.13

Positions of a structural nature (i.e. non-trading), may be excluded from the calculation of the net open currency positions. These may include:

- (a) Positions taken deliberately in order to hedge, partially or totally, against the adverse effects of exchange rate movements on the Islamic bank licensee's CAR;
- (b) Positions related to items that are deducted from the Islamic bank licensee's regulatory capital when calculating its Total Capital in accordance with the rules and guidelines in this Module, such as investments in non-consolidated subsidiaries or long-term participations denominated in foreign currencies which are reported at historical cost; and
- (c) Retained profits held for payout to parent, where the profits are held in the currency concerned.

#### CA-5.5.14

The CBB will consider approving the exclusion of the above positions for the purpose of calculating the capital requirement, only if each of the following conditions is met:

- (a) The concerned Islamic bank licensee provides adequate documentary evidence to the CBB which establishes the fact that the positions proposed to be excluded are, indeed, of a structural nature (i.e. non-dealing) and are merely intended to protect the Islamic bank licensee's CAR. For this purpose, the CBB may ask written representations from the Islamic bank licensee's management or directors; and
- (b) Any exclusion of a position is consistently applied, with the treatment of the structural positions remaining the same for the life of the associated assets or other items.



<b>MODULE</b>	<b>CA: Capital Adequacy</b>
<b>CHAPTER</b>	<b>CA-5 Market Risk</b>

**CA-5.5 Foreign Exchange Risk (continued)**

*Calculation of the Overall Net Open Position*

**CA-5.5.15**

The net position in each currency is converted at the spot rate, into the reporting currency. The overall net open position must be measured by aggregating the following:

- (a) The sum of the net liabilities positions or the sum of the net asset positions whichever is greater; and
- (b) The net position (liabilities and assets) in gold and/or silver, regardless of sign.

CA-5.5.16

Where the parent bank is assessing its foreign exchange on a consolidated basis, it may be technically impractical in the case of some marginal operations to include the currency positions of a foreign branch or subsidiary of the concerned bank. In such cases, the internal limit for that branch/subsidiary, in each currency, may be used as a proxy for the positions. The branch/subsidiary limits should be added, without regard to sign, to the net open position in each currency involved. When this simplified approach to the treatment of currencies with marginal operations is adopted, the Islamic bank licensee should adequately monitor the actual positions of the branch/subsidiary against the limits, and revise the limits, if necessary, based on the results of the ex-post monitoring.

*Calculation of the Capital Charge*

**CA-5.5.17**

The capital charge is 8% of the overall net open foreign currency position as calculated in Paragraph CA-5.5.15.

CA-5.5.18

The table below illustrates the calculation of the overall net open foreign currency position and the capital charge:

Example of the calculation of the foreign exchange overall net open position and the capital charge

GBP	EUR	SAR	US\$	JPY	GOLD and silver
+200	+100	+70	-190	-40	-50
+370			-230		50

The capital charge is 8% of the higher of either the sum of the net long currency positions or the sum of the net short positions (i.e. 370) and of the net position in gold and/or silver (i.e. 50) = 420 @ 8% = 33.6



MODULE	CA: Capital Adequacy
CHAPTER	CA-5 Market Risk

## CA-5.6 Commodities and Inventory Risks

### *Introduction*

#### CA-5.6.1

This Section sets out the minimum capital requirements to cover the risk of holding or taking positions in commodities, including precious metals, but excluding gold and silver (which is treated as a foreign currency according to the methodology explained in section CA-5.5) as well as the inventory risk which results from a bank holding assets with a view to reselling or leasing them. A commodity is defined as a physical product which is and can be traded on a secondary market – for example, agricultural products, minerals (including oil) and precious metals. Inventory risk is defined as arising from holding items in inventory either for resale under a Murabahah contract, or with a view to leasing under an Ijara contract. In the case of inventory risk, the simplified approach described in Paragraph CA-5.6.13 is applied.

#### CA-5.6.2

The commodities position risk and the capital charges are calculated with reference to the entire business of a bank (i.e. the banking and trading books combined). Furthermore, the funding of commodities positions may well open an Islamic bank licensee to foreign exchange risk which should be captured within the measurement framework set out in Section CA-5.5.

#### CA-5.6.3

The price risk in commodities is often more complex and volatile than that associated with currencies. Banks need to guard against the risk that arises when a liability (i.e. in a Parallel Salam transaction) position falls due before the asset position (i.e. a failure associated with or delay in the Salam contract). Owing to a shortage of liquidity in some markets, it might be difficult to close the Parallel Salam position and the bank might be “squeezed by the market”. All these commodity market characteristics can result in price transparency and the effective management of risk.

#### CA-5.6.4

All contracts (Salam, Musharakah, Mudarabah or Commodity Murabahah) involving commodities as defined in Sections CA-3.3, CA-3.6, CA-3.7 and CA-3.11 are subject to commodities risk and a capital charge as per the relevant provisions must be computed.

#### CA-5.6.5

Commodities risk can be measured using either the maturity ladder approach or the simplified approach for the purpose of calculating the capital charge for commodities risk. Islamic bank licensees must notify the CBB of which approach they propose to follow. This is for reporting purposes on the form PIR. An Islamic bank licensee which proposes to use the maturity ladder approach will not be allowed to revert to the simplified approach without the prior approval of the CBB.



<b>MODULE</b>	<b>CA: Capital Adequacy</b>
<b>CHAPTER</b>	<b>CA-5 Market Risk</b>

## CA-5.6 Commodities and Inventory Risks (continued)

### *Calculation of Commodities Positions*

#### CA-5.6.6

Under both approaches, Islamic bank licensees must first express each commodity position (e.g. Salam and Parallel Salam) in terms of the standard unit of measurement (i.e. barrels, kilograms, grams, etc.). Assets and liabilities positions in a commodity are reported on a net basis for the purpose of calculating the net open position in that commodity. For markets which have daily delivery dates, any contracts maturing within ten days of one another may be offset. The net position in each commodity is then converted, at spot rates, into the Islamic bank licensee's reporting currency.

#### CA-5.6.7

Positions in different commodities<sup>36</sup> cannot be offset for the purpose of calculating the open-positions as described in Paragraph CA-5.6.6 except in the following instances:

- (a) The sub-categories of commodities are deliverable against each other;
- (b) The commodities represent close substitutes for each other; and
- (c) A minimum correlation of 0.9 between the price movements of the commodities can be clearly established over a minimum period of one year to the satisfaction of the CBB. Netting of positions for different commodities is subject to the CBB's approval. Under the maturity ladder approach, the net positions are entered into seven time bands as set out in Paragraph CA-5.6.10.

#### CA-5.6.8

Islamic bank licensees, which wish to net positions based on correlation (in the manner discussed in Subparagraph CA-5.6.7(c)), must satisfy the CBB of the accuracy of the method which they propose to adopt.

### *Maturity Ladder Approach*

#### CA-5.6.9

A worked example of the maturity ladder approach is set out in Appendix CA-13 and the table in Paragraph CA-5.6.10 illustrates the maturity time-bands of the maturity ladder for each commodity.

<sup>36</sup> Commodities can be grouped into clans, families, sub-groups and individual commodities; for example, a clan might be Energy Commodities, within which Hydro-carbons is a family, with Crude Oil being a sub-group, and West Texas Intermediate, Arabian Light and Brent being individual commodities.



<b>MODULE</b>	<b>CA: Capital Adequacy</b>
<b>CHAPTER</b>	<b>CA-5 Market Risk</b>

**CA-5.6 Commodities and Inventory Risks (continued)**

**CA-5.6.10**

The steps in the calculation of the commodities risk by the maturity ladder approach are:

- (a) The net positions in individual commodities, expressed in terms of the standard unit of measurement, are first slotted into the maturity ladder. Physical stocks are allocated to the first-time band. A separate maturity ladder is used for each commodity; and
- (b) The sum of short and long positions in the same time-band that are matched is multiplied first by the spot price of the commodity, and then by the spread rate of 1.5% for each time-band as set out in the table below. This represents the capital charge in order to capture all risks within a time-band (which, together, are sometimes referred to as curvature risk).

Time band <sup>37</sup>	
0-1	months
1-3	months
3-6	months
6-12	months
1-2	years
2-3	years
over 3	years

**CA-5.6.11**

After the two steps in Paragraph CA-5.6.10 are completed, the residual (or unmatched) net positions from nearer time-bands are then carried forward to offset opposite positions (i.e. asset against liability and vice versa) in time bands that are further out. However, a surcharge of 0.6% of the net position carried forward is added in respect of each time-band that the net position is carried forward, to recognise that such management of positions between different time-bands is imprecise. This surcharge is in addition to the capital charge calculated in Paragraph CA-5.6.10 for each matched amount created by carrying net positions forward.

<sup>37</sup> Instruments, where the maturity is on the boundary of two maturity time-bands, should be placed into the earlier maturity band. For example, instruments with a maturity of exactly one-year are placed into the 6 to 12 months time-band.



MODULE	CA: Capital Adequacy
CHAPTER	CA-5 Market Risk

## CA-5.6 Commodities and Inventory Risks (continued)

CA-5.6.12 Any net position at the end of the carrying forward and offsetting processes described in Paragraphs CA-5.6.10 and CA-5.6.11 attract a capital charge of 15%.

CA-5.6.12A Although there are differences in volatility between different commodities, only one uniform capital charge for open positions in all commodities applies in the interest of simplicity.

### *Simplified Approach*

CA-5.6.13 Under the simplified approach as applied to commodities, the net position, long or short, in each commodity requires a capital charge of 15% to cater for directional risk plus an additional capital charge of 3% of the gross positions – that is, long plus short positions – to cater for basis risk. The capital charge of 15% applies to assets held by Islamic bank licensees in inventory with a view to resale or lease.

### *Other Capital Charges*

CA-5.6.14 For Istisna work-in-process (WIP), WIP inventory belonging to the Islamic bank licensee must attract a capital charge of 8% (equivalent to a 100% RW). In the case of the balance of unbilled WIP inventory under Istisna` without parallel Istisna`, in addition to the RW for credit risk a capital charge of 1.6% is applied (equivalent to a 20% RW) to cater for market risk exposure.

CA-5.6.15 The funding of a commodities position that exposes the Islamic bank licensee to foreign exchange exposure is also subject to a capital charge as measured under foreign exchange risk (refer to Section CA-5.5).



MODULE	CA: Capital Adequacy
CHAPTER	CA-6: Operational Risk

## CA-6.1 Definition of Operational Risk

CA-6.1.1 Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events which includes but is not limited to, legal risk and Sharia compliance risk. This definition excludes strategic and reputational risk.

CA-6.1.2 Sharia compliance risk is an operational risk facing Islamic banks which can lead to non-recognition of income and resultant losses.

CA-6.1.3 Operational risk in Islamic bank licensees can be broadly divided into three categories:

- (a) General risks: Such risks are consequential upon various kinds of banking operations conducted by Islamic bank licensees that are common to all financial intermediaries.<sup>38</sup> Nevertheless, the asset-based nature of financing products in banks such as Murabahah, Salam, Istisna' and Ijara may give rise to additional forms of operational risk in contract drafting and execution that are specific to such products;
- (b) Shari'a non-compliance risk: This is the risk of non-compliance resulting from the failure of an Islamic bank licensee's Shari'a governance mechanism (systems and personnel) to ensure its compliance with Shari'a rules and principles as determined by its Shari'a board or other relevant body in the related jurisdiction. This risk can lead to non-recognition of an Islamic bank licensee's income and resultant losses. The risk can take two broad forms in banks: (i) risks relating to potential non-compliance with Shari'a rules and principles in the Islamic bank licensees' operations, including the risk of non-permissible income being recognised, when there is a failure in Shari'a compliance; and (ii) the risk associated with the Islamic bank licensee's fiduciary responsibilities as Mudarib towards fund providers under the Mudarabah form of contract, according to which, in the case of misconduct or negligence by the Mudarib, the funds provided by the fund providers become a liability of the Mudarib. Sukuk structures may also be exposed to Shari'a non-compliance risk which may adversely affect the marketability, and hence the value, of the Sukuk; and
- (c) Legal risks: Legal risk includes, but is not limited to, exposures to fines, penalties or punitive damages resulting from supervisory actions as well as private settlements. Such risk can arise from either: (i) the Islamic bank licensee's operations – that is, from legal risks common to all financial intermediaries; or (ii) problems of legal uncertainty in interpreting and enforcing contracts based on Shari'a rules and principles. Legal risks also include the risk that a Sukuk structure in which an Islamic bank licensee is originator, sponsor, manager or investor fails to perform as intended because of some legal deficiency. The current section is concerned, not with exposures to legal risk as a Sukuk investor, but with potential losses due to exposures to legal risk as originator, sponsor or manager.

<sup>38</sup> Though operational risk related to the banking operations of banks can be considered similar to that of conventional banks in many respects, the characteristics of such risk may be different in banks in certain cases – for example: (i) Shari'a-compliant products may involve processing steps distinct from those of their conventional counterparts; (ii) banks typically hold different types of assets on their balance sheets compared to conventional banks – for example, physical assets or real estate; and (iii) banks may encounter varied risk related to information technology products and systems due to the requirements of Shari'a compliance.



MODULE	CA: Capital Adequacy
CHAPTER	CA-6: Operational Risk

## CA-6.2 The Measurement Methodologies

- CA-6.2.1 The framework outlined below presents two methods for calculating operational risk capital charges in a continuum of increasing sophistication and risk sensitivity:
- The Basic Indicator Approach; and
  - The Standardised Approach.

**CA-6.2.2** An Islamic bank licensee will not be allowed to choose to revert to basic indicator approach once it has been approved for standardised approach without CBB's approval. However, if the CBB determines that an Islamic bank licensee using the standardised approach no longer meets the qualifying criteria for the standardised approach, it may require the Islamic bank licensee to revert to the basic indicator approach for some or all of its operations, until it meets the conditions specified by the CBB for returning to the standardised approach.

### *Basic Indicator Approach*

**CA-6.2.3** Islamic bank licensees using the Basic Indicator Approach must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (denoted alpha) of positive annual gross income. Figures for any year in which annual gross income is negative or zero must be excluded from both the numerator and denominator when calculating the average. See Paragraph CA-6.2.6 for approaches to be used where negative gross income distorts an Islamic bank licensee's Pillar 1 capital charge. The charge may be expressed as follows:

$$K_{BIA} = [\sum (GI_{1..n} \alpha)]/n$$

where:

$K_{BIA}$  = the capital charge under the Basic Indicator Approach

GI = annual gross income, where positive, over the previous three years (audited financial years)

n = number of the previous three years for which gross income is positive

$\alpha$  = 15%, relating the industry wide level of required capital to the industry wide level of the indicator.



MODULE	CA: Capital Adequacy
CHAPTER	CA-6: Operational Risk

## CA-6.2 The Measurement Methodologies (continued)

CA-6.2.4 The extent of losses arising from non-compliance with Sharia rules and principles cannot be ascertained owing to the lack of data. Therefore, Islamic bank licensees are not required to set aside any additional amount over and above the 15% of average annual gross income over the preceding three years for operational risk.

### CA-6.2.5

Gross income is defined as:

- (a) Net income from financing activities which is gross of any provisions (e.g. for unpaid profit or non-performing facilities), operating expenses (including outsourcing service providers), depreciation of Ijarah assets and excludes realised profits/losses from the sale of securities (e.g. sukuk) in the banking book;
- (b) Net income from investment activities. This includes the Islamic bank licensee's share of profit from musharakah and mudarabah financing activities; and
- (c) Fee income (e.g. commission and agency fee)

Less:

- (d) Share of above income attributable to investment account holders and other account holders; and
- (e) Extraordinary or exceptional income and income from Takaful activities.

CA-6.2.6 In case of an Islamic bank licensee with negative gross income for the previous three years, a newly licensed bank with less than 3 years of operations, or a merger, acquisition or material restructuring, the CBB shall discuss with the concerned Islamic bank licensee an alternative method for calculating the operational risk capital charge. For example, a newly licensed bank may be required to use the projected gross income in its 3-year business plan. Another approach that the CBB may consider is to require such licensed banks to observe a higher CAR.

CA-6.2.7 Banks applying both approaches are required to refer to the principles set in Section OM-8.2 of Operational Risk Management Module.

### *The Standardised Approach*

### CA-6.2.8

In the Standardised Approach, banks' activities are divided into eight business lines: corporate finance, trading & sales, retail banking, commercial banking, payment & settlement, agency services, asset management, and retail brokerage. The business lines are defined in detail in Appendix CA-14. The Islamic bank licensee must meet the requirements detailed in Section OM-8.3 to qualify for the use of standardised approach.



<b>MODULE</b>	<b>CA:</b>	<b>Capital Adequacy</b>
<b>CHAPTER</b>	<b>CA-6:</b>	<b>Operational Risk</b>

## CA-6.2 The Measurement Methodologies (continued)

CA-6.2.9 Within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta) assigned to that business line. Beta serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line. It should be noted that in the Standardised Approach, gross income is measured for each business line, not the whole bank, i.e. in corporate finance, the indicator is the gross income generated in the corporate finance business line.

### CA-6.2.10

The total capital charge is calculated as the three-year average of the simple summation of the regulatory capital charges across each of the business lines in each year. In any given year, negative capital charges (resulting from negative gross income) in any business line cannot offset positive capital charges in other business lines. Where the aggregate capital charge across all business lines within a given year is negative, then the input to the numerator for that year will be zero. If negative gross income distorts an Islamic bank licensee's Pillar 1 capital charge, the CBB will follow the approaches outlined in Paragraph CA-6.2.5. The total capital charge may be expressed as:

$$K_{TSA} = \left\{ \sum_{\text{years } 1-3} \max[(GI_{1-8} \times \beta_{1-8}), 0] \right\} / 3$$

where:

$K_{TSA}$  = the capital charge under the Standardised Approach

$GI_{1-8}$  = annual gross income in a given year, as defined above in the Basic Indicator Approach, for each of the eight business lines

$\beta_{1-8}$  = a fixed percentage, relating the level of required capital to the level of the gross income for each of the eight business lines.

The values of the betas are detailed below.

<u>Business Lines</u>	<u>Beta Factors (%)</u>
Corporate Finance ( $\beta_1$ )	18
Trading and Sales ( $\beta_2$ )	18
Retail Banking ( $\beta_3$ )	12
Commercial Banking ( $\beta_4$ )	15
Payment and Settlement ( $\beta_5$ )	18
Agency Services ( $\beta_6$ )	15
Asset Management ( $\beta_7$ )	12
Retail Brokerage ( $\beta_8$ )	12



<b>MODULE</b>	<b>CA: Capital Adequacy</b>
<b>CHAPTER</b>	<b>CA-7: Profit Sharing Investment Accounts</b>

**CA-7** [This chapter was deleted in January 2015.]



<b>MODULE</b>	<b>CA: Capital Adequacy</b>
<b>CHAPTER</b>	<b>CA-8: Sukuk and Securitisation</b>

## CA-8.1 Introduction

CA-8.1.1 This Section deals with minimum capital adequacy requirements in relation to (i) Islamic bank licensees holdings of Sukuk; and (ii) the exposures of an Islamic bank licensee where it is, or acts in a capacity such that it is considered to be, (a) the originator of a Sukuk issue, (b) an issuer of Sukuk, (c) a servicer of a Sukuk issuance, or (d) a provider of credit enhancement to a Sukuk issuance.

CA-8.1.2 Sukuk (plural of Sakk) are certificates, with each Sakk representing a proportional undivided ownership right in tangible and intangible assets, monetary assets, usufructs, services, debts or a pool of these assets, or a business venture (such as a Mudarabah or Musharakah). These assets, which must be clearly identifiable, may be in a specific project or investment activity in accordance with Shari'a rules and principles. The ownership right on Sukuk assets may be either a right of legal ownership (commonly referred to in the market as "asset-backed Sukuk") or a right of beneficial ownership through a trust which holds the assets for the benefit of the Sukuk holders (commonly referred to in the market as "asset-based Sukuk").



MODULE	CA: Capital Adequacy
CHAPTER	CA-8: Sukuk and Securitisation

## CA-8.2 Features of Securitisation in Sukuk

### *Parties in a Securitisation Structure*

- CA-8.2.1 From a capital adequacy perspective, the parties in a securitisation structure include the originator, the issuer and the investors, in addition to which the following may be involved: an institution that acts as manager of the issuance, a servicer to service the underlying assets,<sup>39</sup> one or more credit rating agencies to rate the Sukuk, an investment banker to act as an adviser or to place the securities with investors, and (in some Sukuk securitisations) an institution that acts as a provider of credit enhancement.<sup>40</sup>
- CA-8.2.2 An Islamic bank licensee may act as originator of Sukuk issues where the ownership of assets held by the Islamic bank licensee is transferred to holders of Sukuk by means of a securitisation. Such a securitisation may offer the Islamic bank licensee one or more of the following benefits:
- (a) Increased liquidity, since a relatively illiquid asset (such as an asset held as lessor in an Ijara or Ijara Muntahia Bittamlik) is converted into cash paid by the investors in the Sukuk subscription; and/ or
  - (b) Reduced capital requirements, insofar as the securitisation may permit the issuing Islamic bank licensee to exclude the assets from the calculation of its RWAs.
- CA-8.2.3 The achievement of the second of these benefits will depend on the way in which the securitisation is structured. For this, the Islamic bank licensee must be able to derecognise all or most of the exposures relating to the assets from its balance sheet, according to the criteria for de-recognition set out in Paragraphs CA-8.2.20 to 22.
- CA-8.2.4 An Islamic bank licensee may act as sponsor of a Sukuk issuance or similar programme involving assets of a customer in which the Islamic bank licensee manages or acts as adviser to the programme, places the Sukuk into the market, or provides liquidity and/or credit enhancements. In this case, the benefit to the Islamic bank licensee would be the earning of fees for the services provided, but the Islamic bank licensee will incur capital charges if it offers credit enhancement (as outlined in Section CA-8.4).

<sup>39</sup> Depending on the structure of the Sukuk securitisation, a servicer may perform different functions for management of the underlying assets in the Sukuk – for example, to collect payment, handle related taxes, manage escrow accounts and/or remit payments.

<sup>40</sup> See Paragraphs CA-8.2.22 to 27 for details.



<b>MODULE</b>	<b>CA: Capital Adequacy</b>
<b>CHAPTER</b>	<b>CA-8: Sukuk and Securitisation</b>

## CA-8.2 Features of Securitisation in Sukuk (continued)

### *Collateral Security Structure*

#### CA-8.2.5

Consideration of the collateral security structure<sup>41</sup> is a critical factor; it needs to be the subject of legal opinions and is subject to Shari'a permissibility (in the case of perfectibility<sup>42</sup>). Those security interests must be the first priority (there can be no prior or subsequent claims) and be perfected (or perfectible).

#### CA-8.2.6

The legal opinions must address the nature of the security interest, the enforceability of the security interest against third parties, and perfection requirements (such as notices and registration). The effects of bankruptcy (see also Paragraph CA-8.3.22) on perfection must also be considered and opined upon. Major issues related to Sukuk based on collateral security interest and related perfection include the following:

- (a) Rahn (mortgage or other pledge of assets) concepts in certain jurisdictions are possessory in nature. This makes perfection a particularly difficult opinion issue in these jurisdictions;
- (b) In many jurisdictions, and without regard to rahn concepts, perfection and priority regimes are not well developed; and
- (c) Bankruptcy laws and regimes may also not be well developed in some jurisdictions.

<sup>41</sup> Collateral security structure is mainly used in Sukuk based on Shari'a-compliant project financing.

<sup>42</sup> In legal terminology, perfection relates to the additional steps required to be taken in relation to a security interest in order to make it effective against third parties and/or to retain its effectiveness in the event of default by the grantor of the security interest.



MODULE	CA: Capital Adequacy
CHAPTER	CA-8: Sukuk and Securitisation

## CA-8.2 Features of Securitisation in Sukuk (continued)

### *Characteristics of True Sale and Repurchase of Assets*

#### CA-8.2.8

Sukuk are issued based on securitisation of assets where the originator "transfers" the assets via an SPV to Sukuk investors and the latter have a legally recognised asset ownership interest. For such transfer of assets to hold legally, there must be an agreement that is evidence of a binding sale transaction from the originator to the Sukuk investors; that is, such a contract must be valid, binding and legally enforceable on all parties involved. With this sale transaction, the investors will become legal owner of the assets underlying the Sukuk transaction, with all of the rights and obligations that accompany actual ownership. The SPV must be "bankruptcy remote" from the originator. Thus, upon the insolvency of a Sukuk originator, the underlying assets cannot be clawed back into the bankruptcy estate of the originator. In such Sukuk, Sukuk holders have no recourse to the originator; their only recourse is to the underlying assets.

#### CA-8.2.9

There are four key criteria for a transaction to be considered as a "true sale" that transfers legal title to the SPV for the benefit of the Sukuk investors:

- (a) The transfer must be such that it cannot be re-characterised by a court or other body as a secured loan, or otherwise be avoided in a bankruptcy or insolvency proceeding involving the originator of the assets (such as pursuant to a fraudulent transfer in anticipation of bankruptcy or a preference payment);
- (b) The bankruptcy or insolvency of the originator must not affect the assets that have been transferred to the issuer/SPV. This, in turn, means that the issuer will be able to enforce collection and other rights against the source of the income (the payer) without hindrances resulting from the bankruptcy or insolvency of the originator;
- (c) The transfer must then be perfectible at the election of the issuer; and
- (d) The sale must be free and clear of all prior overriding liens.



MODULE	CA: Capital Adequacy
CHAPTER	CA-8: Sukuk and Securitisation

## CA-8.2 Features of Securitisation in Sukuk (continued)

### CA-8.2.10

According to Shari'a rules, it is not permissible for the Mudarib (investment manager), Sharik (partner) or Wakil (agent) to undertake in advance to repurchase the assets at maturity from Sukuk holders or from one who holds them, for their nominal or par value. It is, however, permissible for a third party credit enhancement provider to undertake the purchase on the basis of the net value of assets, their market value, fair value or a price to be agreed at the time of purchase. In such cases, the risks of the assets are retained and are subject to the requirements of section CA-8.4. In the event of negligence or misconduct by the Sukuk manager (i.e. Mudarib, Sharik or Wakil), it is required that the Sukuk manager be liable to guarantee the payment of capital to Sukuk holders, at the nominal or par value (again subject to the requirements of CA-8.4). It is also permissible for a lessee (i.e. the originator) in an Ijara Sukuk to undertake to purchase the leased assets at maturity for their nominal value, provided the lessee is not also a Sharik, Mudarib or Wakil. If the lessee is an Islamic bank licensee, such an undertaking would be treated as a 'clean-up call' (see CA-8.2.21) if it satisfies certain conditions or it is subject to section CA-8.4 if it is of a more general nature.

### CA-8.2.11

The SPV must be formed as a company or trust or other legal entity having no other business. In a Sukuk securitisation, the SPV must be organised, for example, as a Musharakah, Mudarabah or Wakalah, where the requirement of SPV having no other business applies. In the case of a Musharakah, there is a partnership contract with financial participation by the Sukuk investors. In the case of a Mudarabah structure, only the Sukuk investors participate with money as Rabb al-Mal, while the other party (i.e. the SPV) acts as the manager (as Mudarib) of the securitised assets. In the case of Wakalah, the SPV as an agent (Wakil) acts as the manager of assets on behalf of the Sukuk investors.



MODULE	CA: Capital Adequacy
CHAPTER	CA-8: Sukuk and Securitisation

## CA-8.2 Features of Securitisation in Sukuk (continued)

### CA-8.2.12

Islamic bank licensees must not use a general-purpose or operating company (as opposed to an SPV) for holding the securitised assets, as such a company might have other assets and other liabilities, each of which would be likely to interfere with the exclusivity of the Sukuk investors' rights over the securitised assets. By its very nature, it is a legal shell with only the specific assets transferred by the originator, and those assets are effectively owned by the Sukuk investors, legally or via a trust, there being nothing else in the vehicle in which any other party could have an interest. Such an SPV cannot be consolidated with the originator for tax, accounting or legal purposes, as that would affect its bankruptcy-remote position.

#### *Credit Enhancement*

CA-8.2.13 Sukuk can be "credit enhanced" to raise their credit quality above that of the underlying asset pool. Credit enhancement is therefore intended to reduce the credit risk to the Sukuk investors and reduce the funding cost of the originator. It also results in the Sukuk having an enhanced credit rating by ECAIs recognised by the CBB in section 4.6 of this Module. Subject to Shari'a permissibility, the mechanisms used in credit enhancement may include, inter alia, those discussed in Paragraphs CA-8.2.14 to CA-8.2.17.

#### *Over-collateralisation*

CA-8.2.14 Subject to Shari'a approval of the structure, an originator may retain a small equity share in a pool of securitised assets in order to provide over-collateralisation. For example, the originator of a securitisation of a pool of Ijara lease assets might securitise 90% of the pool and retain 10% as an equity position (first loss position) – that is, a residual claim. The Sukuk holders would be entitled to income based on 90%, and the originator, based on the remaining 10%, of the rental income from the pool. The treatment of retained holdings is outlined in Section CA-8.3.



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## CA-8.2 Features of Securitisation in Sukuk (continued)

### *Excess Spread*

CA-8.2.16 Excess spread is the difference between (a) the expected periodic net income from the securitised assets (i.e. the income after expenses such as servicing fees and operating fees have been paid) and (b) the periodic amounts payable to the Sukuk investors. Subject to Shari'a approval, excess spread may be built into a Sukuk structure such that the issuer/SPV retains a certain percentage of the periodic net income if this is in excess of the target level of the periodic payments to the Sukuk holders, and holds this amount in an excess spread reserve. If the net income falls below the level required to meet the target level of the payments to the Sukuk holders, the issuer/SPV may release an amount from the excess spread reserve in order to make good the shortfall in whole or in part.<sup>43</sup>

### *Cash Collateral*

CA-8.2.17 Cash collateral is a segregated trust account, funded at the time when a new series of Sukuk is issued, that can be used to cover shortfalls in payment of coupons, principal or servicing expenses if the excess spread falls below zero. The account can be funded by the issuer, but is most often generated by a Qard from the originator or another third party. Commonly, the pooling and servicing agreements dictate the amount of the cash collateral, which is typically based on a specified percentage of the Sukuk issued. The amount in the cash collateral account is subject to risk-weighting as outlined in this Module, depending upon the use of funds.

### *Classification of Credit Enhancement*

CA-8.2.18 The credit enhancement in a Sukuk structure can be provided by an "internal" mechanism such as by the issuer of the Sukuk structure or by an "external" arrangement such as a third-party guarantee. These credit enhancement structures are explained in the following:

(a) Issuer-provided credit enhancement structure (the SPE)

This structure comprises credit support where a part of the credit risk of the asset pool is assumed by the issuer.

(b) Third-party guarantee credit enhancement structure

This structure comprises the assumption of credit risk by parties other than the issuer. The guarantor does not have the right of recourse to the originator, and the guarantee can be for a fixed period and for a limited amount, without any consideration being received by the guarantor. However, a claim should first be made against the underlying assets, and then against the guarantor, unless an option is provided to make the claim otherwise.

<sup>43</sup> This mechanism is comparable to the "profit equalisation reserve" commonly used by a bank to "smooth" the profit payouts to investment account holders.



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## CA-8.2 Features of Securitisation in Sukuk (continued)

### *Assets in Securitisations*

CA-8.2.19

The assets in a Sukuk securitisation have to be in compliance with Shari'a rules and principles.

CA-8.2.20

In order to comply with Shari'a rules and principles, the structure must transfer all ownership rights in the assets from the originator via the issuer to the investors. Depending on the applicable legal system, these ownership rights do not necessarily include registered title. The transfer could be a simple collection of ownership attributes that allow the investor (a) to assume the role of the originator and (b) to perform (sometimes via a servicer) duties related to ownership. The transfer could also include rights granting access to the assets, subject to notice, and, in the case of default, the right to take possession of the assets.

### *Recognition of Risk Transference (Asset De-recognition Criteria)*

CA-8.2.21

An originating Islamic bank licensee may exclude securitised exposures from the calculation of its assets for capital adequacy purposes only if all of the following conditions have been met. Islamic bank licensees meeting these conditions must still hold regulatory capital against any exposures that they retain in respect of the securitisation (such as credit enhancements – see Section CA-8.4).

- (a) In substance, all credit risks (and price risk, where applicable) associated with the securitised assets have been transferred to third parties;
- (b) The transferor (i.e. originator) does not maintain effective or indirect control over the transferred assets. The assets are legally isolated from the transferor in such a way that the exposures are put beyond the reach of the transferor and its creditors, even in bankruptcy or receivership. See Paragraphs CA-8.2.5 to CA-8.2.12 for full details;
- (c) Holders of the Sukuk (investors) have a claim only to the underlying pool of assets, and have no claim against the transferor;
- (d) The immediate transferee is an SPV, and the holders of the legal and beneficial interests in that entity have the right to pledge or exchange such interests without restriction; and



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- (e) Clean-up calls<sup>44</sup> must be at the discretion of only the issuer (SPV). They must not be structured to provide credit enhancement and must be exercisable only when 10% or less of the purchase consideration for the underlying assets (e.g. in an IMB) remains to be paid. The issuer's rights to make clean-up calls, and the terms on which they are made, must have prior written Shari'a approval.

### CA-8.2.22

The conditions for bankruptcy remoteness include the following:

- (a) If there were a bankruptcy of the issuer, the assets of the issuer will be distributed in accordance with the law or a court order, rather than in accordance with the contractual arrangements involving the issuer;
- (b) Separateness covenants are required to ensure bankruptcy remoteness (as well as non-consolidation); and
- (c) Another provision to ensure bankruptcy remoteness relates to non-competition and bankruptcy declarations. The originator, investors, credit enhancers and others agree in the transaction documents not to initiate involuntary bankruptcy proceedings against the issuer. The issuer also provides, in both its constitutive documents and the transaction documents, not to initiate voluntary bankruptcy proceedings. The parties must seek a legal opinion from jurists in the jurisdiction concerned and ensure that these types of agreements and warranties are legally valid and enforceable.

### *Operational Requirements for Credit Analysis*

### CA-8.2.23

Islamic bank licensees must carry out the credit analysis of their securitisation exposure based on the following criteria, in order to be allowed to use the risk weights in Section CA-8.3. If an Islamic bank licensee is unable to perform the due diligence and maintain the information specified in this paragraph, it will be required to risk weight the securitisation exposure at 1,250%. The criteria are applicable to securitisation exposures of Islamic bank licensees both in the banking and trading book:

- (a) An Islamic bank licensee must have a clear understanding of the nature and features of its individual securitisation exposures, including the risk characteristics of the pools underlying such exposure on an ongoing basis. This requirement applies to both on- and off-balance sheet securitisation exposures;

<sup>44</sup> A clean-up call is an option that permits the securitisation exposures to be called before all of the underlying exposures or securitisation exposures have been repaid. It is generally accomplished by repurchasing the remaining securitisation exposures once the pool balance or outstanding securities have fallen below some specified level.



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## CA-8.2 Features of Securitisation in Sukuk (continued)

- (b) As the payments to Sukuk holders are dependent on the performance of underlying assets, an Islamic bank licensee must be able to assess the performance information on an ongoing basis; and
- (c) An Islamic bank licensee must be able to thoroughly understand all the structural features of a Sukuk that can materially impact the performance of its exposures to the transaction. Such exposures may include credit enhancements, liquidity enhancements, triggers, and deal-specific default definitions.

### CA-8.2.24

The capital treatment of a securitisation exposure must be determined on the basis of the economic substance rather than the legal form of the securitisation structure. Islamic bank licensees must consult with the CBB when there is uncertainty about whether a given transaction should be considered a securitisation.



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### CA-8.3 Capital Requirements for Holdings of Sukuk

CA-8.3.1 The following sets out the minimum capital requirements to cover the credit risk and market risk arising from the holding of a Sukuk in the “banking book” by an Islamic bank licensee. The CBB will use its discretion to specify measurement approaches as it thinks appropriate for other types of Sukuk which are not listed in this sub-section, provided they are approved by an Islamic bank licensee’s Shari’a board. For unrated Sukuk that use a combination of more than one of the Shari’a-compliant contracts outlined below, the capital requirement will be calculated taking into account the risk implications of the overall structure.

CA-8.3.2 Where Sukuk are externally rated, Islamic bank licensees must apply the relevant risk weight given in Paragraph CA-8.4.3 based on the ECAI ratings from recognised agencies listed in Section CA-4.6. Where there are no acceptable ECAI ratings, the RWs will be 1,250% (as shown on table CA-8.4.3) or determined on the basis of the underlying assets as shown in the remainder of this Section for the different types of Sukuk (which may involve market risk as well as credit risk).

CA-8.3.3 An Islamic bank licensee must have methodologies that enable it to assess the credit risk involved in securitisation exposures at individual and portfolio levels. Islamic bank licensees must refer to Paragraph CA-8.2.23 for details of the suggested criteria to be used in credit analysis. An Islamic bank licensee must assess exposures, regardless of whether they are rated or unrated, and determine whether the RWs applied to such exposures, under the standardised approach, are appropriate for their inherent risk. In those instances where an Islamic bank licensee determines that the inherent risk of such an exposure, particularly if it is unrated, is significantly higher than that implied by the RW to which it is assigned, the Islamic bank licensee must consider the higher degree of credit risk in the evaluation of its overall capital adequacy.

CA-8.3.4 For Sukuk classified in the trading book, the market risk capital requirement as mentioned in Section CA-5.4 on market risk is applicable.

#### *Salam Sukuk*

CA-8.3.5 The credit risk in Salam Sukuk is similar to that of the underlying Salam contract, where the credit risk exists upon the subscription of the Sukuk until the delivery and sale of the subject matter. The RW is based on the counterparty (Salam supplier) unless the Salam capital is guaranteed by a third party, in which case the RW is that of the guarantor if lower than that of the supplier.



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### CA-8.3 Capital Requirements for Holdings of Sukuk (continued)

#### CA-8.3.6

The market risk in Salam Sukuk (in the absence of a parallel Salam contract or other hedge) is likewise the same as that of the underlying contract, namely a long position in the underlying commodity. This risk can be measured according to either the maturity ladder approach or the simplified approach as set out in Section CA-5.6 (commodities and inventory risk).

#### CA-8.3.7

A Salam Sukuk issuance which is structured with an undertaking from the issuer that the underlying commodity will be sold to a third party at a specified selling price (by means of a parallel Salam contract) must carry the RW of the buyer of that underlying commodity in the parallel Salam contract.

#### CA-8.3.8

For the type of Salam Sukuk described in Paragraph CA-8.3.7, there is no capital charge for market risk that consists of basis and forward gap risks (namely, the risk that the hedge may be impaired because the underlying commodity delivered may be of inferior quality or may be delivered later than the contractual date) as the underlying commodity is normally traded on an exchange that eliminates the risk of late/non-delivery or delivery of a commodity of inferior quality.

#### *Istisna Sukuk*

#### CA-8.3.9

The asset may be constructed on behalf of an ultimate customer or off-taker with whom the Islamic bank licensee enters into a parallel Istisna contract. In this case, there is a credit risk exposure to the ultimate customer for the payment due under the parallel contract. This credit risk occurs upon commencement of the construction work by construction firm, until the whole amount or all the instalments (progress billings) are paid by the ultimate customer. The RW for this credit exposure is that of the ultimate customer, unless there is a guarantee, in which case the RW is that of the guarantor if lower.

#### CA-8.3.10

The RW for Istisna Sukuk where there is no parallel Istisna is based on that of the issuer, unless a third party provides a guarantee, in which case the third party's RW (if lower than that of the issuer) will be applicable. In addition, a RW of 20% will be added to cater for the price risk to which the underlying Istisna is exposed.

#### CA-8.3.11

In the event the returns to the Sukuk holder are from the cash flow of the underlying assets, which fall under the category of "Exposure to Assets" Istisna, the RW must be based on the "supervisory slotting criteria" approach which carries RW of 70–250%.

#### CA-8.3.12

Refer to Section CA-3.4 on Istisna for detailed treatment.



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### CA-8.3 Capital Requirements for Holdings of Sukuk (continued)

#### *Ijara and IMB Sukuk*

CA-8.3.13

The RW for IMB rentals is based on the lessee's counterparty credit risk, since the bearer of the residual value risk of the underlying asset is not borne by the Sukuk holders. Refer to Section CA-3.5 on Ijara and IMB for detailed treatment.

#### *Musharakah Sukuk*

CA-8.3.14

The capital treatment of Musharakah Sukuk is based on the intent of the underlying investments in Musharakah that can be categorised as follows:

- (a) For private commercial enterprise to undertake trading activities in, for example, commodities, the RW must be based on the applicable underlying assets as set out in the market risk section of Section CA-5.1;
- (b) For private commercial enterprise to undertake business venture or project (other than Subparagraph CA-8.3.14(a)), the RW is measured according to either the simple RW method or the supervisory slotting criteria approach;
- (c) Income-producing Musharakah investments through leasing of jointly-owned real estate or movable assets such as cars to third parties by means of Ijara must carry the RW of the counterparty – that is, the lessee; and
- (d) Income-producing Musharakah investments with Murabahah sub-contracts carry the RW of the Murabahah.

CA-8.3.15 Refer to Section CA-3.6 on Musharakah for detailed treatment.

#### *Mudarabah Sukuk*

CA-8.3.16

The treatment of Mudarabah Sukuk is based on the intent of the underlying investments in Mudarabah, as follows:

- (a) For private commercial enterprise to undertake trading activities in, for example, commodities, the RW must be based on the applicable underlying assets as set out in the market risk section in Section CA-5.1
- (b) For private commercial enterprise to undertake business venture or project (other than Subparagraph CA-8.3.16(a)), the RW in respect of an equity exposure is measured according to either the simple RW method or the supervisory slotting criteria approach.



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### CA-8.3 Capital Requirements for Holdings of Sukuk (continued)

CA-8.3.17 Refer to Section CA-3.7 on Mudarabah for detailed treatment.

#### *Wakalah Sukuk*

CA-8.3.18

The treatment of Wakalah Sukuk is based on the intent of the underlying investments in Wakalah, which can be categorised as follows:

- (a) To undertake trading activities in foreign exchange, shares or commodities, the RW must be based on the applicable underlying assets as set out in the market risk section in Section CA-5.1;
- (b) Income-producing Wakalah investments through leasing to third parties by means of Ijara must carry the RW of the counterparty – that is, the lessee;
- (c) Income-producing Wakalah investments with Murabahah sub-contracts carry the RW of the Murabahah; and
- (d) To invest in a combination of assets comprising shares, leasable assets, receivables from Murabahah or Salam, etc. the RW is measured according to the percentage of assets allocated in the investment portfolio of Wakalah Sukuk based on Subparagraphs CA-8.3.18(a) and CA-8.3.18 (b).

CA-8.3.19 Refer to Section CA-3.10 on Wakalah for detailed treatment.

#### *Murabahah Sukuk*

CA-8.3.20

The applicable RW must be based on the standing of the obligor or issuer as shown in the table in CA-8.4.3. If the Sukuk structure involves funding of an asset purchase in foreign currency, the relevant exposure must be calculated based on measures of foreign exchange risk described in Section CA-5.5 (foreign exchange risk).

CA-8.3.21 Refer to Section CA-3.2 on Murabahah for detailed treatment.

#### *Exclusions*

CA-8.3.22

For all those Sukuk structures where legal transfer of assets has not taken place due to the reasons outlined in Section CA-8.2, the applicable RW must be the credit RW as shown in table CA-8.4.3, subject to any Shari'a-compliant credit enhancement by the issuer (see Paragraphs CA-8.4.23 and CA-8.4.24). In some cases, a number of originators may form a pool to contribute assets in an asset-based structure (e.g. multiple sovereigns). In such cases, the rating of the Sukuk is that of the pool, subject to any Shari'a-compliant credit enhancement.



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### CA-8.3 Capital Requirements for Holdings of Sukuk (continued)

#### *Treatment of Holdings of Sukuk Where Credit Enhancement Is Provided by an Issuer or Originator*

##### CA-8.3.23

For Sukuk with credit enhancement provided by the issuer or the originator, the RW is based on the credit rating of the credit enhancer (see table in CA-8.3.24 below). See Section CA-8.2 for details of various types of credit enhancements.

#### *Treatment of Credit Enhancement Provided by a Structure*

##### CA-8.3.24

Exposures in a Shari'a-compliant credit enhancement structure (described in section CA-8.2) must be risk-weighted as shown in the following table.

Risk Weights					
Rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below or Unrated
Risk weight	20%	50%	100%	350%	1250%

#### *Treatment of Credit Risk Mitigation Received for Holdings of Securitisation Exposures*

##### CA-8.3.25

The treatment in Paragraphs CA-8.3.26 to CA-8.2.30 applies to an Islamic bank licensee that has obtained a credit risk mitigant to a securitisation exposure. Credit risk mitigants include guarantees, collateral and on-balance sheet netting or any other Shari'a-compliant credit risk mitigation as recognised in Paragraph CA-4.7.21. Collateral in this context is that used to mitigate the credit risk of a securitisation exposure, rather than the underlying exposures of the securitisation transaction, subject to fulfilling criteria in Paragraphs CA-8.2.5 and CA-8.2.6.



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### CA-8.3 Capital Requirements for Holdings of Sukuk (continued)

#### *Collateral*

CA-8.3.26 Eligible collateral is limited to that recognised under Section CA-4.7. Collateral pledged by SPVs may be recognised.

#### *Guarantees*

CA-8.3.27 Credit protection provided by the entities listed in Paragraph CA-4.7.21 may be recognised. SPVs cannot be recognised as eligible guarantors. An Islamic bank licensee must not recognise any support provided by itself.

CA-8.3.28 Where guarantees fulfil the minimum operational conditions as specified in Paragraph CA-4.7.12, Islamic bank licensees can take account of such credit protection in calculating capital requirements for securitisation exposures.

CA-8.3.29 Capital requirements for the guaranteed/protected portion is calculated according to CRM as specified in Paragraphs CA-4.7.24 to CA-4.7.31.

#### *Maturity Mismatches*

CA-8.3.30 For the purpose of setting regulatory capital against a maturity mismatch, the capital requirement is determined in accordance with Paragraphs CA-4.7.27 to CA-4.7.28. When the exposures being hedged have different maturities, the longest maturity must be used.



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#### CA-8.4 Capital Requirements where the Bank is the Originator, Issuer or Credit Enhancement Provider

##### *Retained Securitisation Exposures*

**CA-8.4.1** An Islamic bank licensee taking the role of an originator is required to hold regulatory capital against all of its retained securitisation exposures. Repurchased securitisation exposures must be treated as retained securitisation exposures.

**CA-8.4.2** The risk-weighted asset amount of a retained securitisation exposure is computed by multiplying the amount of the exposure by the appropriate risk weight in accordance with the table in CA-8.4.3.

**CA-8.4.3** The following credit risk weights are applied for retained securitisation exposures where the Islamic bank licensee is the originator.

Long term rating <sup>45</sup>	Securitisation Exposure	Re-securitisation Exposure
AAA to AA-	20%	40%
A+ to A-	50%	100%
BBB+ to BBB-	100%	225%
BB+ to BB-	350%	650%
B+ and below or unrated	1,250%	1,250%

Short term rating	Securitisation Exposure	Re-securitisation Exposure
A-1/P-1	20%	40%
A-2/P-2	50%	100%
A-3/P-3	100%	225%
All other ratings or unrated	1,250%	1,250%

<sup>45</sup> The rating designations used in the following tables are for illustrative purposes only and do not indicate any preference for, or endorsement of, any particular external assessment system.



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#### CA-8.4 Capital Requirements where the Bank is the Originator, Issuer or Credit Enhancement Provider (continued)

##### *Treatment of Off-balance Sheet Exposures Where the Bank is the Credit Enhancer*

###### CA-8.4.3A

When the Islamic bank licensee provides credit protection to a securitisation exposure, it must calculate a capital requirement on the covered exposure as if it were an investor in that securitisation. If the Islamic bank licensee provides protection to a Sukuk issuance, it must treat the credit protection provided based on the risk of the underlying assets of the Sukuk as shown in Paragraph CA-8.4.3. If the Islamic bank licensee provides protection to a Sukuk issuance that has no legal transfer of assets, it must treat the credit protection provided based on the ECAI rating of the originator (as shown in the table in Paragraph CA-8.4.3).

##### *Treatment of Off-balance Sheet Exposures - Liquidity Facilities and Credit Risk Mitigants Provided to Securitisations*

###### CA-8.4.4

For off-balance sheet exposures arising from the provision of a liquidity facility, Islamic bank licensees must apply a 100% credit conversion factor (CCF) and then risk-weight the resultant credit-equivalent amount as shown in table CA-8.4.3. For risk-based capital purposes, Islamic bank licensees must determine whether, subject to the criteria in Paragraph CA-8.4.4A, an off-balance sheet securitisation exposure qualifies as an ‘eligible liquidity facility’ or an ‘eligible servicer cash advance facility’, in which case a lower CCF may apply (see CA-8.4.4B and CA-8.4.5).

###### CA-8.4.4A

Islamic bank licensees are permitted to treat off-balance sheet securitisation exposures as ‘eligible liquidity facilities’ if the following minimum requirements are satisfied:

- (a) The facility documentation must clearly identify and limit the circumstances under which it may be drawn. Draws under the facility must be limited to the amount that is likely to be repaid fully from the liquidation of the underlying exposures and any seller-provided credit enhancements. In addition, the facility must not cover any losses incurred in the underlying pool of exposures prior to a draw, or be structured such that draw-down is certain (as indicated by regular or continuous draws);
- (b) The facility must be subject to an asset quality test that precludes it from being drawn to cover credit risk exposures that are past due by more than 90 days. In addition, if the exposures that a liquidity facility is required to fund are externally rated securities, the facility can only be used to fund securities that are externally rated investment grade at the time of funding; and



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#### CA-8.4 Capital Requirements where the Bank is the Originator, Issuer or Credit Enhancement Provider (continued)

- (c) The facility cannot be drawn after all applicable (e.g. transaction-specific and programme-wide) credit enhancements from which the liquidity facility would benefit have been exhausted.

##### CA-8.4.4B

Where the conditions in Paragraph CA8.4.4A are met, the Islamic bank licensee may apply a 50% CCF to the eligible facility regardless of the maturity of the facility. However, if an external rating of the facility itself is used for risk-weighting the facility, a 100% CCF must be applied.

##### CA-8.4.4C

Liquidity facilities in certain types of Sukuk structures are commitments from the facility provider to provide liquid funds if these are needed to meet contractual payments to Sukuk holders and there is a delay between the date of their collection and the date on which the payment to the Sukuk holders is due. The need for such facilities may result from a timing mismatch between cash collections from the underlying Sukuk assets (such as Ijara rentals) and the scheduled payments due under the programme to the Sukuk holders.

#### *Treatment of Eligible Servicer Cash Advance Facility Provided to Securitisations*

##### CA-8.4.5

An eligible servicer cash advance facility, based on Qard, is an advance granted by the servicer to the SPV to ensure timely payment to the investors<sup>46</sup> – for instance, in cases of timing differences between collection and payments. However, it is a Shari'a requirement that such facilities remain essentially separate from the Sukuk undertaking and that this separation be properly documented. In the case of servicer cash advances, a risk weight of 50% is applied to such facilities.

##### CA-8.4.6

A Qard made to enhance earnings raises issues of Shari'a compliance and must be distinguished from credit enhancement by means of "excess spread", as described in Paragraph CA-8.2.24 and must be treated as under Paragraph CA-8.4.3A.

<sup>46</sup> It is, however, not permissible for the manager of Sukuk, whether the manager acts as Mudarib (investment manager), or Shārik (partner) or Wakil (agent) for investment, to undertake to offer loans to Sukuk holders when actual earnings fall short of expected earnings. It is permissible, however, to establish a reserve account for the purpose of covering such shortfalls to the extent possible, provided the same is mentioned in the prospectus. It is not objectionable to distribute expected earnings, on account, or to obtain project financing on account of the Sukuk holders.



MODULE	CA: Capital Adequacy
CHAPTER	CA-9: Real Estate Activities

## CA-9.1 Current Regulatory Environment of Real Estate Activities

CA-9.1.1 Islamic bank licensees often invest in real estate directly on their balance sheets, or as part of off-balance sheet asset management activities, or indirectly through a wholly or majority-owned subsidiary. Real estate lends itself as a permissible asset class, as Shari'a rules and principles allow such investment. However, there is a general concern that such investments may expose the Islamic bank licensees to the effects of cyclical real estate markets.

**CA-9.1.2** Owing to the risks outlined in Paragraph CA-9.1.1, real estate investment activities are suitable for an Islamic bank licensee only on a very limited scale and under restrictive conditions designed to control the various risks posed to the Islamic bank licensee and its UPSIAs. Islamic bank licensees must demarcate clearly their real estate exposures into financing and investment categories. The CBB requires licensees to report real estate exposures to the CBB.

### *Indirect Exposure in Real Estate*

CA-9.1.3 Islamic bank licensees can engage in indirect real estate activities where real estate business is conducted by separate entities. Such exposure can take a number of forms. For example, an Islamic bank licensee can: (a) be involved in real estate activities through a joint venture or equity participation with a property development company; (b) establish a real estate subsidiary to carry out related commercial activities; or (c) accept real estate as collateral against its financing to the customers.

### *Treatment of Real Estate Investment Exposures through Joint Venture or Equity Participation*

**CA-9.1.4** As mentioned in Subparagraph CA-3.7.10(b), an Islamic bank licensee can enter into a private commercial enterprise to undertake a business venture (which can include real estate). There are two possible methods used to calculate equity exposures in this type of investment. According to the simple risk-weight method, the RW must be applied to the exposures (net of specific provisions) based on the treatment of equity exposures in the banking book. The applicable RW for such exposures must entail a 400% RW for investments in shares that are not publicly traded less any specific provisions for impairment. Alternatively, a 300% RW is applicable for investments in shares that are publicly traded less any specific provisions for impairment. If there is a third-party guarantee to make good impairment losses, the RW of the guarantor may be substituted for that of the assets for the amount of any such guarantee where the risk weight of the guarantor is lower, subject to the conditions for guarantees in Section CA-4.7 being fulfilled. In order to use the alternative slotting method for calculation of RWs, an Islamic bank licensee must seek the CBB's prior written approval and map its RWs into four supervisory categories as set out in Appendix CA-6.



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CHAPTER	CA-9: Real Estate Activities

## CA-9.1 Current Regulatory Environment of Real Estate Activities (continued)

### *Treatment of Investment Exposures in Real Estate Subsidiaries of Banks*

#### CA-9.1.5

From a capital adequacy perspective, where an Islamic bank licensee has a subsidiary through which it carries out real estate investment, its investments in the capital of such a subsidiary must be treated in the same way as an investment in a non-banking commercial entity – that is, by application of a 800% RW for the investment if this amount is greater than 15% of its Total Capital. This RW will be applicable on the portion of the investment that exceeds the 15% threshold. The investment in real estate entities below the 15% level will be risk-weighted not lower than in Paragraph CA-9.1.4.

### *Treatment of Real Estate Taken as Collateral*

#### CA-9.1.6

If an Islamic bank licensee accepts real estate as collateral, whether residential or commercial, from customers against its financing activities, the eligibility of such real estate as a credit risk mitigant will be subject to the provisions of Section CA-4.7 and subject to the risk-weighting of the concerned contract (see CA-3 for differing contract types). Moreover, an Islamic bank licensee is required to take the following steps when the collateral is in the form of real estate:

- (a) Any claim on collateral must be properly filed on a timely basis. Collateral interests must reflect a perfected lien; that is, appropriate steps are taken in relation to the real estate so that security interest of the Islamic bank licensee is effective against customer's default and/or third parties;
- (b) The collateral agreement and the underlying legal process must enable the Islamic bank licensee to have access to and to dispose of the collateral within a reasonable time frame;
- (c) The realisable value of the collateral (after deducting any haircuts) must be able adequately to cover the amount of financing;
- (d) The valuation must be performed at a minimum once every year, or more frequently if needed;
- (e) The real estate must be insured under a Takaful scheme against damage and deterioration;
- (f) Ongoing claims on property (such as tax) must be regularly monitored; and
- (g) Any risk of environmental liability arising from the property such as contamination in the soil, or of ground water, etc., must be taken into account.



MODULE	CA: Capital Adequacy
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## CA-9.1 Current Regulatory Environment of Real Estate Activities (continued)

### *Risk-Weighting of Real Estate Exposures*

CA-9.1.7 The calculation of RWs for real estate financing and investment exposures is summarised below.

#### *Real Estate Financing*

##### CA-9.1.8

An Islamic bank licensee can provide real estate financing on the basis of Ijara, IMB, diminishing Musharakah, Murabahah and Istisna. Except for operating Ijara, use of other contracts to provide real estate finance to customers will commonly fall in the category of financing. The RWs for these exposures must be calculated based on the Rules provided in the relevant Sections, as set out below:

- (a) IMB: Section CA-3.5;
- (b) Diminishing Musharakah: Sections CA-4.8 ;
- (c) Murabahah: Section CA-3.2;
- (d) Istisna: Section CA-3.4; and
- (e) For all the above contracts used to provide real estate financing, the RW of a debtor, counterparty or other obligor can be reduced and given preferential treatment if criteria mentioned in Section CA-4.2 are applicable.

#### *Real Estate Investment*

##### CA-9.1.10

Islamic bank licensees are required to hold regulatory capital against all of their real estate investment exposures. The risk-weighted amount of a real estate investment exposure is computed by multiplying the amount of the carrying value by the appropriate risk weight.

##### CA-9.1.11

The applicable risk weights of a single investment exposure for Murabahah, IMB and operating Ijarah are as follows:

- (a) The treatment for a single investment exposure is a 200% RW;
- (b) The treatment for an exposure due to a holding for financing purposes during the non-binding stage of the transaction is a 200% RW; and
- (c) The treatment of an exposure resulting from operating Ijara is the risk weights as mentioned in Paragraph CA-3.5.21.



MODULE	CA: Capital Adequacy
CHAPTER	CA-9: Real Estate Activities

## CA-9.1 Current Regulatory Environment of Real Estate Activities (continued)

### CA-9.1.12

When Islamic bank licensees are involved extensively in real estate investment activities, the CBB may impose a higher capital charge on a solo basis to cushion unexpected losses. Further, the CBB may increase the level of CCF in case Islamic bank licensees are engaged in real estate as part of off-balance sheet asset management activities.

### *Valuation of Real Estate Activities*

#### CA-9.1.13

The measurement of risk exposures in real estate activities is dependent on sound and proper valuations as outlined in Chapter CM-2 of this Rulebook. The risks inherent in the real estate activities depend on a number of factors, including the type of property and the independent parties who will assess these activities. Islamic bank licensees must have in place adequate valuation rules and proper valuation methodologies.

### CA-9.1.14

Islamic bank licensees must value their property activities on a consistent basis. Otherwise, there can be no level playing field for capital adequacy treatment. In the case of assets under Murabahah or Ijara/IMB transactions, the Islamic bank licensee must employ appropriate valuation to estimate the amount for which a property switches from investment to financing, or vice versa.

### CA-9.1.15

The valuation of an Islamic bank licensee's real estate investments is subject to the rules in Module CM. Islamic bank licensees must have robust procedures to substantiate the results of valuations while comparing them with some independent information source such as property market reports or reliable publications. Islamic bank licensees should scrutinise any significant variations in these valuations and make any necessary rectifications.



<b>MODULE</b>	<b>CA: Capital Adequacy</b>
<b>CHAPTER</b>	<b>CA-10: Leverage Ratio Requirements</b>

## CA-10.1 Rationale and Objective

### *Scope and Factors Leading to Leverage*

**CA-10.1.1** The content of this Chapter will be consulted at a later date