Appendix CA-2

Treatment of counterparty credit risk and cross-product netting

1. This Appendix outlines the permitted method for estimating the exposure amount for Shari'a compliant hedging instruments with counterparty credit risk (CCR) in Module CA (see CA-4.5.16 in particular). Islamic banks should use the current exposure method for such exposures.

I. Definitions and general terminology

2. This section defines terms that will be used throughout this text.

A. General terms

- **Counterparty Credit Risk (CCR)** is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transactions or portfolio of transactions with the counterparty has a positive economic value at the time of default. Unlike a bank's exposure to credit risk through a financing facility, where the exposure to credit risk is unilateral and only the lending bank faces the risk of loss, CCR creates a bilateral risk of loss: the market value of the transaction can be positive or negative to either counterparty to the transaction. The market value is uncertain and can vary over time with the movement of underlying market factors.

- **Current Exposure** is the larger of zero, or the market value of a transaction with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Current exposure is often also called Replacement Cost.

II. Scope of application

3. The method for computing the exposure amount under the current exposure method described in this Appendix is applicable to OTC Shari'a compliant hedging transactions.

4. Such instruments generally exhibit the following abstract characteristics:

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

5. Other common characteristics of the transactions to be covered may include the following:

- Collateral may be used to mitigate risk exposure and is inherent in the nature of some transactions.
- Netting may be used to mitigate the risk.
- Positions are frequently valued (most commonly on a daily basis), according to market variables.

6. An exposure value of zero for counterparty credit risk can be attributed to Shari'a compliant hedging contracts or SFTs that are outstanding with a central counterparty (e.g. a clearing house). This does not apply to counterparty credit risk exposures from transactions that have been rejected by the central counterparty. Furthermore, an exposure value of zero can be attributed to banks' credit risk exposures to central counterparties that result from the transactions that the bank has outstanding with the central counterparty. This exemption extends in particular to credit exposures from clearing deposits and from collateral posted with the central counterparty. A central counterparty is an entity that interposes itself between counterparties to contracts traded within one or more financial markets, becoming the legal counterparty such that it is the buyer to every seller and the seller to every buyer. In order to qualify for the above exemptions, the central counterparty CCR exposures with all participants in its arrangements must be fully collateralized on a daily basis, thereby providing protection for the central counterparty's CCR exposures. Assets held by a central counterparty as a custodian on the bank's behalf would not be subject to a capital requirement for counterparty credit risk exposure.

7. The exposure amount for counterparty credit risk is zero for Shari'a compliant hedging instruments where they are treated in the framework as a guarantee provided by the bank and subject to a credit risk charge for the full notional amount.

8. Under the Current Exposure Method identified in this Appendix, the exposure amount for a given counterparty is equal to the sum of the exposure amounts for all OTC contracts for that counterparty.

III. Current Exposure Method

9. Under the Current Exposure Method, banks must calculate the current replacement cost by marking contracts to market, thus capturing the current exposure without any need for estimation, and then adding a factor (the "add-on") to reflect the potential future exposure over the remaining life of the contract. Thus the credit equivalent amount of these instruments is the summation of the following two factors:
    - The total replacement cost (obtained by "marking to market") of all its contracts with positive value (using a zerolue for contracts with negative replacement costs); and
    - An amount for potential future credit exposure calculated by multiplying the total notional principal amount of each contract in its book by an "add-on factor", split by residual maturity as follows:

	Shari'a compliant Profit Rate Swaps	**Shari'a compliant Foreign Currency Swaps**	**Other Shari'a compliant Hedging contracts**
One year or less	0.0%	1.0%	10.0%
Over one year to five years	0.5%	5.0%	12.0%
Over five years	1.5%	7.5%	15.0%

Notes:

1. For contracts with multiple exchanges of principal, the factors are to be multiplied by the number of remaining payments in the contract.

2. For contracts that are structured to settle outstanding exposure following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity would be set equal to the time until the next reset date. In the case of Shari'a compliant profit rate swaps with remaining maturities of more than one year that meet the above criteria, the add-on factor is subject to a floor of 0.5%.

3. Forwards, swaps and similar contracts not covered by any of the columns of this matrix are to be treated as "other hedging contracts".

4. No potential future credit exposure would be calculated for single currency floating/floating profit rate swaps; the credit exposure on these contracts would be evaluated solely on the basis of their mark-to-market value.

10. Add-ons should be based on effective rather than apparent notional amounts. In the event that the stated notional amount is enhanced by the structure of the transaction, banks must use the effective notional amount when determining potential future exposure.

11. Banks can obtain capital relief for eligible collateral as defined in Section CA-4.7of Module CA. The methodology for the recognition of eligible collateral follows that of the applicable approach for credit risk.

Bilateral netting

12(i). Careful consideration has been given to the issue of bilateral netting, i.e. weighting the net rather than the gross claims with the same counterparties arising out of the full range of forwards, swaps, and similar contracts.[1] The CBB is concerned that if a liquidator of a failed counterparty has (or may have) the right to unbundle netted contracts, demanding performance on those contracts favourable to the failed counterparty and defaulting on unfavourable contracts, there is no reduction in counterparty risk.

12(ii). Accordingly, for capital adequacy purposes:

(a) Banks may net transactions subject to novation under which any obligation between a bank and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations.

(b) Banks may also net transactions subject to any legally valid form of bilateral netting not covered in (a), including other forms of novation.

(c) In both cases (a) and (b), a bank will need to satisfy the CBB that it has:[2]

(i) A netting contract or agreement with the counterparty which creates a single legal obligation, covering all included transactions, such that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark-to-market values of included individual transactions in the event a counterparty fails to perform due to any of the following: default, bankruptcy, liquidation or similar circumstances;

(ii) Written and reasoned legal opinions that, in the event of a legal challenge, the relevant courts and administrative authorities would find the bank's exposure to be such a net amount under:

- The law of the jurisdiction in which the counterparty is chartered and, if the foreign branch of a counterparty is involved, then also under the law of the jurisdiction in which the branch is located;
- The law that governs the individual transactions; and
- The law that governs any contract or agreement necessary to effect the netting.

The CBB, after consultation when necessary with other relevant supervisors, must be satisfied that the netting is enforceable under the laws of each of the relevant jurisdictions;[3]

(iii) Procedures in place to ensure that the legal characteristics of netting arrangements are kept under review in the light of possible changes in relevant law.

12(iii). Contracts containing walkaway clauses will not be eligible for netting for the purpose of calculating capital requirements pursuant to this Framework. A walkaway clause is a provision which permits a non-defaulting counterparty to make only limited payments, or no payment at all, to the estate of a defaulter, even if the defaulter is a net creditor.

[1] Payments netting, which is designed to reduce the operational costs of daily settlements, will not be recognised in the capital framework since the counterparty's gross obligations are not in any way affected.

[2] In cases where an agreement as described in 12(ii) (a) has been recognised prior to July 1994, the CBB will determine whether any additional steps are necessary to satisfy itself that the agreement meets the requirements set out below.

[3] Thus, if any of these supervisors is dissatisfied about enforceability under its laws, the netting contract or agreement will not meet this condition and neither counterparty could obtain supervisory benefit.

12(iv). Credit exposure on bilaterally netted forward transactions will be calculated as the sum of the net mark-to-market replacement cost, if positive, plus an add-on based on the notional underlying principal. The add-on for netted transactions (ANet) will equal the weighted average of the gross add-on (AGross)[4] and the gross add-on adjusted by the ratio of net current replacement cost to gross current replacement cost (NGR). This is expressed through the following formula:

$$ANet=0.4*AGross+0.6*NGR*AGross$$

where :

NGR=level of net replacement cost/level of gross replacement cost for transactions subject to legally enforceable netting agreements[5]

12(v). The scale of the gross add-ons to apply in this formula will be the same as those for non-netted transactions as set out in paragraphs 9 to 12 of this Appendix. The CBB will continue to review the scale of add-ons to make sure they are appropriate. For purposes of calculating potential future credit exposure to a netting counterparty for forward foreign exchange contracts and other similar contracts in which notional principal is equivalent to cash flows, notional principal is defined as the net receipts falling due on each value date in each currency. The reason for this is that offsetting contracts in the same currency maturing on the same date will have lower potential future exposure as well as lower current exposure.

Risk weighting

12(vi). Once the bank has calculated the credit equivalent amounts they are to be weighted according to the category of counterparty in the same way as in the main framework, including concessionary weighting in respect of exposures backed by eligible guarantees and collateral. The CBB will keep a close eye on the credit quality of participants in these markets and reserves the right to raise the weights if average credit quality deteriorates or if loss experience increases.

[4] AGross equals the sum of individual add-on amounts (calculated by multiplying the notional principal amount by the appropriate add-on factors set out in paragraph 9 of this Appendix) of all transactions subject to legally enforceable netting agreements with one counterparty.

[5] The CBB may permit a choice of calculating the NGR on a counterparty by counterparty or on an aggregate basis for all transactions subject to legally enforceable netting agreements. If the CBB permits a choice of methods, the method chosen by an institution is to be used consistently. Under the aggregate approach, net negative current exposures to individual counterparties cannot be used to offset net positive current exposures to others, i.e. for each counterparty the net current exposure used in calculating the NGR is the maximum of the net replacement cost or zero. Note that under the aggregate approach, the NGR is to be applied individually to each legally enforceable netting agreement so that the credit equivalent amount will be assigned to the appropriate counterparty risk weight category.