# 66. Other exposures which are not past due exposures

- (1) This section applies to—
  - (a) equities held by an authorized institution; and
  - (b) any other on-balance sheet exposures of the institution which do not fall within any of sections 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 67 (including accrued interest if subsection (5) is applicable).

(2) Subject to subsections (3) and (4), an authorized institution shall allocate a risk-weight of 100% to an exposure to which this section applies.

(3) The Monetary Authority may, by notice in writing given to an authorized institution, direct the institution to allocate to an exposure, or an exposure belonging to a class of exposures, to which this section applies, a risk-weight specified in the notice, being a risk-weight greater than 100%.

(4) An authorized institution given a notice under subsection (3) shall comply with the notice.

(5) Where in respect of an on-balance sheet exposure of an authorized institution, the institution has difficulty in allocating any accrued interest under the exposure to the obligors of the institution, the institution may, with the prior consent of the Monetary Authority, treat the accrued interest as an exposure to which this section applies.

### 67. Past due exposures

(1) Notwithstanding sections 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 and 66, an authorized institution shall allocate a risk-weight of 150% to the relevant amount of a past due exposure.

(2) In this section—

- "relevant amount" (有關數額), in relation to a past due exposure, means the amount which is calculated by deducting from the gross outstanding amount of the exposure—
  - (a) the value of any specific provisions made in respect of the exposure; and
  - (b) the sum representing the effect of any recognized credit risk mitigation on the exposure.

### 68. Credit-linked notes

An authorized institution which has an exposure in respect of a creditlinked note held by the institution shall allocate a risk-weight to the exposure which is the greater of—

- (*a*) the risk-weight attributable to the reference obligation of the note as determined in accordance with sections 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66 and 67 as if the institution had a direct exposure to the reference obligation; and
- (b) the attributed risk-weight of the issuer of the note.

### **69.** Application of ECAI ratings

(1) An authorized institution shall, in complying with the requirements under any subsection of section 55, 57, 59, 60, 61 or 62 in relation to an exposure (referred to in subsection (2) as "concerned exposure A") of the institution consisting of a debt obligation issued or undertaken by any person or, for the purposes of section 62, consisting of an interest in a collective investment scheme, where the debt obligation, or collective investment scheme, as the case may be, has one or more than one ECAI issue specific rating assigned to it, determine the rating to be used in accordance with subsection (2).

(2) An authorized institution shall, in complying with the requirements under subsection (1) in relation to concerned exposure A—

- (a) if the exposure has only one ECAI issue specific rating, use that rating;
- (b) if the exposure has 2 or more ECAI issue specific ratings the use of which by the institution would result in the allocation by the institution of different risk-weights to the exposure, use any one of those ratings except the one or more of those ratings which would result in the allocation by the institution of the lowest of those different risk-weights.
- (3) Subject to subsections (5) and (8), where—
  - (a) an exposure (however described) of an authorized institution which falls within any subsection of section 55, 57, 59, 60 or 61 does not have an ECAI issue specific rating;
  - (b) the person to whom the institution has the exposure has a longterm ECAI issue specific rating assigned to a debt obligation issued or undertaken by the person; and
  - (c) the person to whom the institution has the exposure does not have an ECAI issuer rating,

the institution shall, in complying with the requirements under that subsection of section 55, 57, 59, 60 or 61, as the case may be, in relation to the exposure, use the long-term ECAI issue specific rating referred to in paragraph (b) in relation to the exposure subject to the condition that, if the use of that long-term ECAI issue specific rating by the institution would result in the allocation by the institution of a risk-weight to the exposure which would be lower than

the risk-weight allocated by the institution to the exposure on the basis that the person has neither an ECAI issuer rating nor an ECAI issue specific rating assigned to a debt obligation issued or undertaken by the person, the exposure must rank equally with, or senior in respect of payment or repayment to, the debt obligation referred to in paragraph (b).

- (4) Subject to subsections (5) and (8), where—
  - (a) an exposure (however described) of an authorized institution which falls within any subsection of section 55, 57, 59, 60 or 61 does not have an ECAI issue specific rating;
  - (b) the person to whom the institution has the exposure has an ECAI issuer rating; and
  - (c) the person to whom the institution has the exposure does not have a long-term ECAI issue specific rating assigned to a debt obligation issued or undertaken by the person,

the institution shall, in complying with the requirements under that subsection of section 55, 57, 59, 60 or 61, as the case may be, in relation to the exposure, use the ECAI issuer rating referred to in paragraph (b) in relation to the exposure subject to the condition that, if the use of that ECAI issuer rating by the institution would result in the allocation by the institution of a risk-weight to the exposure which would be lower than the risk-weight allocated by the institution to the exposure on the basis that the person has neither an ECAI issuer rating nor an ECAI issue specific rating assigned to a debt obligation issued or undertaken by the person—

- (d) that ECAI issuer rating must only be applicable to unsecured exposures to the person as an issuer which are not subordinated to other exposures to that person; and
- (e) the exposure to the person must not be subordinated to other exposures to the person as an issuer.

(5) An authorized institution shall, in determining pursuant to subsection (3) or (4) the risk-weight for an exposure which falls within paragraph (*a*) of that subsection (referred to in this subsection as "concerned exposure B") based on one or more ECAI issue specific ratings of another debt obligation issued or undertaken by the person to whom the institution has concerned exposure B (referred to in this subsection as "reference exposure"), or based on one or more ECAI issuer ratings of that person (referred to in this subsection as "issuer")—

- (a) if the reference exposure has only one ECAI issue specific rating, or the issuer has only one ECAI issuer rating, as the case may be, use that rating;
- (b) if the reference exposure has 2 or more ECAI issue specific ratings, or the issuer has 2 or more ECAI issuer ratings, as the case may be, the use of which by the institution would result in the allocation by the institution of different

risk-weights to concerned exposure B, use any one of those ratings except the one or more of those ratings which would result in the allocation by the institution of the lowest of those different risk-weights.

- (6) Subject to subsections (7) and (8), where—
  - (*a*) an exposure (however described) of an authorized institution which falls within any subsection of section 55, 57, 59, 60 or 61 does not have an ECAI issue specific rating;
  - (b) the person to whom the institution has the exposure has—
    - (i) an ECAI issuer rating; and
    - (ii) a long-term ECAI issue specific rating assigned to a debt obligation issued or undertaken by the person; and
  - (c) the use, in accordance with subsection (3) or (4), of the ECAI issuer rating and the ECAI issue specific rating referred to in paragraph (b) by the institution would result in the allocation by the institution of 2 different risk-weights to the exposure,

the institution may, in complying with the requirements under that subsection of section 55, 57, 59, 60 or 61, as the case may be, in relation to the exposure, allocate the lower of the 2 risk-weights to the exposure.

- (7) An authorized institution—
  - (a) shall, in determining pursuant to subsection (6) the risk-weight for an exposure which falls within paragraph (a) of that subsection (referred to in this subsection as "concerned exposure C") based on one or more ECAI issue specific ratings of another debt obligation issued or undertaken by the person against whom the institution has concerned exposure C (referred to in this subsection as "reference exposure"), and one or more ECAI issuer ratings of that person—
    - (i) apply subsection (5) to the ECAI issue specific rating or ECAI issue specific ratings, as the case may be, to determine the issue specific rating to be used; and
    - (ii) apply subsection (5) to the ECAI issuer rating or ECAI issuer ratings, as the case may be, to determine the issuer rating to be used; and
  - (b) may, if the risk-weight allocated by the institution to the issue specific rating determined pursuant to paragraph (a)(i) is different from the risk-weight allocated by the institution to the issuer rating determined pursuant to paragraph (a)(i), allocate the lower of the 2 risk-weights to concerned exposure C.

(8) The operation of subsections (1) and (2) is subject to the operation of section 59(11), and the operation of subsections (3), (4), (5), (6) and (7) is subject to the operation of sections 59(10) and (11), 60(8) and (9) and 61(8) and (9).

(9) Where an authorized institution allocates a risk-weight to an exposure of the institution pursuant to subsection (3), (4), (5), (6) or (7)—

- (a) subject to paragraph (b), the institution shall—
  - (i) use ECAI ratings applicable to foreign currency, if available, to the extent that the exposure is denominated in foreign currency; and
  - (ii) use ECAI ratings applicable to local currency, if available, to the extent that the exposure is denominated in local currency;
- (b) the institution may use the obligor's ECAI rating applicable to the obligor's local currency, if available, for the purposes of—
  - (i) risk-weighting an exposure arising pursuant to the institution's participation in an exposure created by a multilateral development bank which is denominated in another currency; or
  - (ii) risk-weighting an exposure denominated in another currency to the extent that the exposure is guaranteed by a multilateral development bank against the risk of the obligor not being able to repay the exposure to the institution due to exchange controls of the country in which the obligor is located.

# 70. Authorized institutions required to nominate ECAIs to be used

- (1) Subject to subsection (2), an authorized institution shall—
  - (a) nominate, for each of its ECAI ratings based portfolios which does not fall within paragraph (b), the name of the ECAI the credit assessment ratings issued by which it will use, for the purposes of this Part, in respect of the ECAI ratings based portfolio concerned; or
  - (b) nominate, for each of its ECAI ratings based portfolios which does not fall within paragraph (a), the names of the ECAIs the credit assessment ratings issued by which it will use, for the purposes of this Part, in respect of the ECAI ratings based portfolio concerned.
- (2) An authorized institution—
  - (*a*) shall nominate under subsection (1)(*a*) the name of an ECAI for an ECAI ratings based portfolio of the institution in respect of which, having regard to the obligors in respect of the institution's exposures which fall within that portfolio and to the

geographical regions where those exposures arise or may require to be enforced, it can reasonably be concluded that the ECAI so nominated issues a range of credit assessment ratings which provides a reasonable coverage for that portfolio;

(b) shall nominate under subsection (1)(b) the names of ECAIs for an ECAI ratings based portfolio of the institution in respect of which, having regard to the obligors in respect of the institution's exposures which fall within that portfolio and to the geographical regions where those exposures arise or may require to be enforced, it can reasonably be concluded that the ECAIs so nominated, and taken collectively, issue a range of credit assessment ratings which provides a reasonable coverage for that portfolio.

(3) An authorized institution shall, as soon as is practicable after making a nomination under subsection (1), give notice in writing to the Monetary Authority of the nomination.

(4) An authorized institution shall not, in respect of an ECAI ratings based portfolio of the institution, use, for the purposes of this Part, the credit assessment ratings of an ECAI unless—

- (a) the ECAI has been nominated under subsection (1) in respect of that portfolio; and
- (b) notice of that nomination has been given to the Monetary Authority pursuant to subsection (3).

(5) An authorized institution may, with the prior consent of the Monetary Authority, amend a nomination under subsection (1) (including a nomination amended pursuant to this subsection).

(6) Subsections (2), (3) and (4), with all necessary modifications, apply to a nomination to be amended, or amended, pursuant to subsection (5) as they apply to a nomination under subsection (1).

(7) For the avoidance of doubt, it is hereby declared that an authorized institution shall, for the purposes of this Part, treat as not having an ECAI rating any person, debt obligation, or collective investment scheme, which, although falling within an ECAI ratings based portfolio of the institution, does not have an ECAI rating assigned to it by an ECAI nominated under subsection (1) by that institution in respect of that portfolio.

(8) In this section—

"ECAI ratings based portfolio" (ECAI 評級基準組合), in relation to an authorized institution, means—

- (a) the institution's sovereign exposures;
- (b) the institution's public sector entity exposures;
- (c) the institution's bank exposures;
- (d) the institution's securities firm exposures;
- (e) the institution's corporate exposures; or
- (f) the institution's collective investment scheme exposures.

### Division 4—Calculation of risk-weighted amount of authorized institution's off-balance sheet exposures

#### 71. Off-balance sheet exposures

(1) An authorized institution shall, in calculating the risk-weighted amount of an off-balance sheet exposure of the institution—

- (a) specified in column 2 of Table 10; and
- (b) booked in the institution's banking book,

calculate the credit equivalent amount of the off-balance sheet exposure by multiplying the principal amount of the exposure, after deducting any specific provisions applicable to the exposure, by the CCF specified in column 3 of Table 10 opposite the exposure.

### TABLE 10

#### DETERMINATION OF CCF FOR OFF-BALANCE SHEET EXPOSURES OTHER THAN OTC DERIVATIVE TRANSACTIONS OR CREDIT DERIVATIVE CONTRACTS

Off-balance sheet exposures	CCF
Direct credit substitutes	100%
Transaction-related contingencies	50%
Trade-related contingencies	20%
Asset sales with recourse	100%
Forward asset purchases	100%
Partly paid-up shares and securities	100%
Forward forward deposits placed	100%
Note issuance and revolving underwriting facilities	50%
<ul> <li>Commitments which do not fall within any of items 1, 2, 3, 4, 5, 6, 7 and 8 and—</li> <li>(a) subject to paragraph (d), which have an original maturity of not more than one year;</li> <li>(b) subject to paragraph (d), which have an original maturity of more than one year;</li> </ul>	20% 50%
	<ul> <li>Direct credit substitutes</li> <li>Transaction-related contingencies</li> <li>Trade-related contingencies</li> <li>Asset sales with recourse</li> <li>Forward asset purchases</li> <li>Partly paid-up shares and securities</li> <li>Forward forward deposits placed</li> <li>Note issuance and revolving underwriting facilities</li> <li>Commitments which do not fall within any of items 1, 2, 3, 4, 5, 6, 7 and 8 and— <ul> <li>(a) subject to paragraph (d), which have an original maturity of not more than one year;</li> <li>(b) subject to paragraph (d), which have an</li> </ul> </li> </ul>

#### Item

#### Off-balance sheet exposures

- (c) which may be cancelled at any time unconditionally by the authorized institution or which provide for automatic cancellation due to a deterioration in the creditworthiness of the persons to whom the institution has made the commitments;
- (d) the drawdown of which will give rise to an off-balance sheet exposure falling within any of items 1, 2, 3, 4, 5, 6, 7 and 8 or any item specified in section 73,

CCF

0%

the lower of the CCF applicable to the commitment based on its original maturity or the CCF applicable to the off-balance sheet exposure arising from the drawdown of the commitment concerned

where----

"original maturity" (原訂到期期限), in relation to an off-balance sheet exposure of an authorized institution, means the period between the date on which the exposure is entered into by the institution and the earliest date on which the institution can, at its option, unconditionally cancel the exposure.

(2) Subject to section 72, an authorized institution shall, in calculating the risk-weighted amount of an off-balance sheet exposure of the institution being an OTC derivative transaction or credit derivative contract—

(a) specified in column 2 of Table 11; and

(b) booked in the institution's banking book or trading book, calculate the credit equivalent amount of the off-balance sheet exposure—

- (c) subject to paragraph (d) and to any exceptions specified in column 2 of Table 11 applicable to the off-balance sheet exposure, by multiplying the principal amount of the off-balance sheet exposure by the CCF specified in column 3 of Table 11 opposite the off-balance sheet exposure and aggregating the resultant figure with the current exposure of the off-balance sheet exposure;
- (d) if the off-balance sheet exposure is a single-currency floating rate against floating rate interest rate swap, by taking the current exposure of the off-balance sheet exposure as the credit equivalent amount.

### TABLE 11

### DETERMINATION OF CCF FOR OTC DERIVATIVE TRANSACTIONS OR CREDIT DERIVATIVE CONTRACTS

Item	Off-balance sheet exposures	CCF
1.	Exchange rate contracts (other than an excluded exchange rate contract)—	
	(a) with a residual maturity of not more than one year;	1%
	(b) with a residual maturity of more than one year but not more than 5 years;	5%
	(c) with a residual maturity of more than 5 years,	7.5%
	where—	
	"excluded exchange rate contract" (豁除匯率合約)	
	means—	
	<ul> <li>(a) an exchange rate contract (except a contract the value of which is determined by reference to the value of, or any fluctuation in the value of, gold) which has an original maturity of not more than 14 calendar days; or</li> <li>(b) a forward exchange rate contract entered into by the authorized institution pursuant to a swap deposit arrangement with an obligor;</li> </ul>	

Item	Off-balance sheet exposures	CCF
	"swap deposit arrangement" (掉期存款安排) means an arrangement entered into by the authorized institution with an obligor whereby the institution sells a specified currency at spot rate to the obligor against another currency, and at the same time, the obligor deposits the specified currency so purchased with the institution and enters into a forward exchange rate contract with the institution to sell the specified currency so purchased back to the institution against another currency at a specified exchange rate on a future date.	
2.	Interest rate contracts—	00 /
	( <i>a</i> ) with a residual maturity of not more than one year;	0%
	(b) with a residual maturity of more than one year but not more than 5 years;	0.5%
	<ul><li>(c) with a residual maturity of more than 5 years.</li></ul>	1.5%
3.	Equity contracts—	
	( <i>a</i> ) with a residual maturity of not more than one year;	6%
	(b) with a residual maturity of more than one	8%
	<ul><li>year but not more than 5 years;</li><li>(c) with a residual maturity of more than 5 years.</li></ul>	10%
4.	Precious metal contracts—	
	( <i>a</i> ) with a residual maturity of not more than one year;	7%
	(b) with a residual maturity of more than one	7%
	<ul><li>year but not more than 5 years;</li><li>(c) with a residual maturity of more than 5 years.</li></ul>	8%
5.	Debt security contracts or other commodity	
	contracts— ( <i>a</i> ) with a residual maturity of not more than	10%
	<ul><li>(b) with a residual maturity of more than one</li><li>(b) wear but not more than 5 years:</li></ul>	12%
	<ul><li>year but not more than 5 years;</li><li>(c) with a residual maturity of more than 5 years.</li></ul>	15%

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Item	Off-balance sheet exposures	CCF
6.	Credit derivative contracts which are— <ul> <li>(a) credit default swaps booked in the trading book— </li> <li>(i) where the authorized institution is a protection buyer and the reference obligation is— <ul> <li>(A) a qualifying reference obligation;</li> <li>(B) a non-qualifying reference obligation;</li> </ul> </li> </ul>	5% 10%
	<ul> <li>(ii) where the authorized institution is a protection seller and the credit default swap is subject to close-out upon the insolvency of the protection buyer while the reference entity is still solvent and the reference obligation is—</li> </ul>	
	<ul> <li>(A) a qualifying reference obligation;</li> <li>(B) a non-qualifying reference obligation;</li> <li>(iii) where the authorized institution is a protection seller and the credit</li> </ul>	5% 10%
	<ul> <li>default swap does not fall within subparagraph (ii) and the reference obligation is—</li> <li>(A) a qualifying reference obligation;</li> <li>(B) a non-qualifying reference obligation;</li> </ul>	0% 0%
	obligation; (b) total return swaps booked in the trading book— (i) where the authorized institution is a	
	<ul> <li>protection buyer and the reference obligation is—</li> <li>(A) a qualifying reference obligation;</li> <li>(B) a non-qualifying reference obligation;</li> </ul>	5% 10%
	<ul> <li>(ii) where the authorized institution is a protection seller and the reference obligation is—</li> <li>(A) a qualifying reference obligation;</li> <li>(B) a non-qualifying reference obligation,</li> </ul>	5% 10%

Item

Off-balance sheet exposures

CCF

where the amount of the potential exposure for a credit derivative contract which falls within paragraph (a)(ii) shall be capped at the amount of the unpaid premium under the contract.

(3) For the avoidance of doubt, it is hereby declared that an authorized institution is not required to hold regulatory capital in respect of an excluded exchange rate contract specified in Table 11.

#### 72. Provisions supplementary to section 71

For the purposes of the operation of section 71 in relation to an authorized institution and its off-balance sheet exposures—

- (a) in the case of an off-balance sheet exposure which has multiple exchanges of principal, the institution shall calculate its potential exposure to the off-balance sheet exposure by multiplying the product of the number of payments remaining to be made under the off-balance sheet exposure and the principal by the CCF required to be used under that section in respect of the offbalance sheet exposure;
- (b) in the case of an off-balance sheet exposure—
  - (i) which is structured to settle the outstanding exposures under the off-balance sheet exposure on specified payment dates; and
  - (ii) the terms of which are reset so that the market value of the off-balance sheet exposure is zero on the specified payment dates referred to in subparagraph (i),

the institution—

- (iii) subject to subparagraph (iv), shall treat the residual maturity of the off-balance sheet exposure as being equal to the period until the next specified payment date; and
- (iv) if the off-balance sheet exposure is an interest rate contract where the remaining time to final maturity of the contract is more than one year, shall not use a CCF of less than 0.5% in respect of the off-balance sheet exposure;
- (c) in the case of an off-balance sheet exposure booked in the institution's trading book which is a first-to-default credit derivative contract, the institution shall use the CCF for non-qualifying reference obligation if there is at least one non-qualifying reference obligation in the basket of reference obligations specified in the contract, otherwise the CCF for qualifying reference obligation is to be used;

- (d) in the case of an off-balance sheet exposure booked in the institution's trading book which is a second-to-default credit derivative contract or any other subsequent-to-default credit derivative contract, the institution shall—
  - (i) for the second-to-default credit derivative contract, use the CCF for non-qualifying reference obligation if there are at least 2 non-qualifying reference obligations in the basket of reference obligations specified in the second-to-default credit derivative contract, otherwise the CCF for qualifying reference obligation is to be used;
  - (ii) for any other subsequent-to-default credit derivative contract, determine the CCF for the other subsequent-todefault credit derivative contract with reference to the corresponding number of non-qualifying reference obligations in the basket of reference obligations specified in the contract based on the approach taken in subparagraph (i);
- (e) in the case of an off-balance sheet exposure which is a commitment in the form of a general banking facility consisting of 2 or more credit lines, where under each credit line, an authorized institution is obliged either to provide funds or create off-balance sheet exposures in the future, the institution shall assign a CCF to the commitment in accordance with item 9(a), (b) or (c) of Table 10 based on the original maturity of the commitment.

### 73. Calculation of credit equivalent amount of other off-balance sheet exposures not specified in Table 10 or 11

An authorized institution shall, in calculating the risk-weighted amount of an off-balance sheet exposure which is not specified in Table 10 or 11, calculate the credit equivalent amount of the off-balance sheet exposure by applying—

- (a) subject to paragraph (b), a CCF of 100%;
- (b) the CCF applicable to the exposure pursuant to Part 2 of Schedule 1,

in accordance with section 71(1) or (2), as the case requires, with all necessary modifications.

# 74. Determination of risk-weights applicable to off-balance sheet exposures

(1) Subject to subsection (2), an authorized institution shall determine the risk-weight attributable to an off-balance sheet exposure in accordance with sections 55, 56, 57, 58, 59, 60, 61, 64, 65, 66 and 67 as if the exposure were an on-balance sheet exposure.

(2) Where an off-balance sheet exposure referred to in subsection (1) of an authorized institution is—

- (a) an asset sale with recourse;
- (b) a forward asset purchase;
- (c) partly paid-up shares and securities; or
- (d) a direct credit substitute arising from the selling of credit derivative contracts in the form of total return swaps or credit default swaps in the institution's banking book,

the institution shall determine the risk-weight attributable to the exposure-

- (e) in the case of paragraph (a) or (b), by reference to the riskweight allocated to the assets or the attributed risk-weight of the obligor in respect of the assets;
- (f) in the case of paragraph (c), as 100%;
- (g) in the case of paragraph (d), subject to subsections (3), (4), (5) and (6), by reference to the risk-weight of the relevant reference obligation in respect of the exposure.

(3) Where an off-balance sheet exposure referred to in subsection (2)(d) of an authorized institution is a first-to-default credit derivative contract—

- (*a*) if the contract has an ECAI issue specific rating, the institution shall allocate to its exposure in respect of the contract the risk-weight, or deduct the exposure from the institution's core capital and supplementary capital, as determined in accordance with section 237;
- (b) if the contract does not have an ECAI issue specific rating, the institution—
  - (i) subject to subparagraph (ii), shall aggregate the risk-weights of the reference obligations in the basket of reference obligations specified in the contract to determine the riskweight to be allocated to its exposure in respect of the contract; and
  - (ii) shall not allocate to its exposure in respect of the contract a risk-weight greater than 1,250%.

(4) Where an off-balance sheet exposure referred to in subsection (2)(d) of an authorized institution is a second-to-default credit derivative contract—

- (a) if the contract has an ECAI issue specific rating, the institution shall allocate to its exposure in respect of the contract the risk-weight, or deduct the exposure from the institution's core capital and supplementary capital, as determined in accordance with section 237;
- (b) if the contract does not have an ECAI issue specific rating, the institution—
  - (i) subject to subparagraph (ii), shall aggregate the risk-weights of the reference obligations in the basket of reference obligations specified in the contract to determine the riskweight to be allocated to its exposure in respect of the contract but excluding the lowest of those risk-weights; and
  - (ii) shall not allocate to its exposure in respect of the contract a risk-weight greater than 1,250%.

(5) Where an off-balance sheet exposure referred to in subsection (2)(d) of an authorized institution is any other subsequent-to-default credit derivative contract, the institution shall, for the purposes of that subsection, and with all necessary modifications, apply subsection (4) to that contract as that subsection is applied to a second-to-default credit derivative contract so that the reference to "lowest" in subsection (4)(b)(i) is construed to mean "lowest and second lowest" in the case of a third-to-default credit derivative contract and "lowest, second lowest and third lowest" in the case of a fourth-to-default credit derivative contract and likewise for other subsequent-to-default credit derivative contract.

(6) Where an off-balance sheet exposure referred to in subsection (2)(d) of an authorized institution is a credit derivative contract which provides credit protection proportionately in respect of the reference obligations in the basket of reference obligations specified in the contract, the institution shall calculate the risk-weight of its exposure in respect of the contract by taking a weighted average of the risk-weights attributable to the reference obligations in the basket by the use of Formula 1.

### FORMULA 1

#### CALCULATION OF RISK-WEIGHT OF CREDIT DERIVATIVE CONTRACT WHICH FALLS WITHIN SECTION 74(6)

$$\mathbf{RW}_{\mathbf{a}} = \sum_{\mathbf{i}} \mathbf{a}_{\mathbf{i}} \times \mathbf{RW}_{\mathbf{i}}$$

where----

- $RW_a$  = average risk-weight in a basket of reference obligations;
- a<sub>i</sub> = proportion of credit protection allocated to a reference obligation; and
- $RW_i$  = risk-weight of a reference obligation.

(7) For the avoidance of doubt, it is hereby declared that where an offbalance sheet exposure referred to in subsection (1) of an authorized institution is a commitment to extend a residential mortgage loan, the institution shall allocate a risk-weight in accordance with section 65 to the exposure only if the institution has no reason to believe that any of the provisions of that section will not be satisfied immediately after the loan that is the subject of that commitment is drawn down.

### 75. Calculation of risk-weighted amount of exposures in respect of repo-style transactions booked in banking book

(1) An authorized institution shall calculate the risk-weighted amount of an exposure in respect of a repo-style transaction booked in its banking book in accordance with the following provisions.

(2) Where the repo-style transaction falls within paragraph (a) or (b) of the definition of "repo-style transaction" in section 2(1), an authorized institution shall treat the securities sold or lent under the transaction as an onbalance sheet exposure of the institution as if the institution had never entered into the transaction and, accordingly, calculate the risk-weighted amount of the institution's exposure in respect of the transaction by reference to the risk-weight attributable to the securities.

(3) Where the repo-style transaction falls within paragraph (c) of the definition of "repo-style transaction" in section 2(1), an authorized institution shall treat the money paid by the institution under the transaction as a loan to the counterparty secured on the securities which are provided to, or to the order of, the institution under the transaction and, accordingly, calculate the risk-weighted amount of the institution's exposure in respect of the transaction by reference to the attributed risk-weight of the counterparty subject to the application of any recognized credit risk mitigation in respect of collateralized transactions.

(4) Where the repo-style transaction falls within paragraph (d) of the definition of "repo-style transaction" in section 2(1)—

(a) if and to the extent an authorized institution has provided collateral in the form of money under the transaction, the institution shall treat the money paid by the institution under the transaction as a loan to the counterparty secured on the securities borrowed by the institution and, accordingly, calculate the risk-weighted amount of the institution's exposure in respect of the transaction by reference to the attributed risk-weight of the counterparty subject to the application of any recognized credit risk mitigation in respect of collateralized transactions; (b) if and to the extent an authorized institution has provided collateral in the form of securities under the transaction, the institution shall treat those securities as its on-balance sheet exposure as if the institution had never entered into the transaction and, accordingly, calculate the risk-weighted amount of the institution's exposure in respect of the transaction by reference to the risk-weight attributable to the securities.

### 76. Calculation of risk-weighted amount of exposures in respect of repo-style transactions booked in trading book

An authorized institution shall calculate the risk-weighted amount of an exposure in respect of a repo-style transaction booked in its trading book—

- (a) by reference to Part 8 in any case where the transaction falls within paragraph (a) or (b) of the definition of "repo-style transaction" in section 2(1), or paragraph (d) of that definition where the collateral provided by the institution is in the form of securities;
- (b) by the application of section 75(3) or (4)(a) to the transaction as if the transaction were booked in the banking book in any case where the transaction falls within paragraph (c) of the definition of "repo-style transaction" in section 2(1), or paragraph (d) of that definition where the collateral provided by the institution is in the form of a sum of money.

### Division 5—Use of recognized collateral in credit risk mitigation: general

### 77. Recognized collateral

Collateral is recognized for the purposes of calculating the risk-weighted amount of an exposure of an authorized institution where—

- (*a*) all documentation creating the collateral and providing for the obligations of the parties with respect to each other in respect of the collateral is binding on all parties and legally enforceable in all relevant jurisdictions;
- (b) the legal mechanism by which the collateral is pledged or transferred ensures that the institution has the right to realize, or to take legal possession of, the collateral in a timely manner in the event of a default by, or the insolvency or bankruptcy of, or any other event specified in the relevant legal documentation applicable to any of—

- (i) the obligor in respect of the exposure; or
- (ii) the custodian, if any, holding the collateral;
- (c) the institution has clear and adequate procedures for the timely realization of collateral in respect of an event referred to in paragraph (b);
- (d) the institution has taken all steps to fulfil requirements under the law applicable to the institution's interest in the collateral which are necessary to obtain and maintain an enforceable security interest, whether by registration or otherwise, or to exercise a right to set-off in relation to title transfer collateral;
- (e) if the collateral is to be held by a custodian, the institution has taken reasonable steps to ensure that the custodian segregates the collateral from the custodian's assets;
- (f) there is no material positive correlation between the credit quality of the obligor in respect of which the institution has an exposure and the current market value of the collateral provided in respect of the exposure such that the current market value of the collateral would be likely to fall in the case of any material deterioration in the financial condition of the obligor;
- (g) if the simple approach to the treatment of recognized collateral applies to the collateral, the collateral—
  - (i) is pledged for not less than the life of the exposure;
  - (ii) subject to subparagraph (iii), is revalued not less than every 6 months from the date upon which the collateral is taken in respect of the exposure; and
  - (iii) in the case of an exposure which is a past due exposure, is revalued not less than every 3 months from the date upon which the exposure is classified as a past due exposure;
- (*h*) if the comprehensive approach to the treatment of recognized collateral applies to the collateral, the institution has in place a written internal policy and systems and procedures—
  - (i) adequate to enable the institution to manage collateral provided to it in respect of any relevant exposure; and
  - (ii) to revalue the collateral as necessary and take account of the assumed minimum holding periods for collateral in the calculation of the risk-weighted amount of its exposures in respect of collateralized transactions; and
- (*i*) the collateral falls within—
  - (i) section 79(a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), (o) or (p) if the institution uses the simple approach in its treatment of recognized collateral; or
  - (ii) section 80(a), (b), (c) or (d) if the institution uses the comprehensive approach in its treatment of recognized collateral.

# 78. Approaches to use of recognized collateral

(1) Subject to subsection (2), an authorized institution may use the simple approach or the comprehensive approach in its treatment of recognized collateral for the purposes of calculating the risk-weighted amount of its exposures.

- (2) An authorized institution shall—
  - (a) for exposures booked in the institution's banking book which are not past due exposures, use only the simple approach or only the comprehensive approach to the treatment of recognized collateral;
  - (b) for past due exposures booked in the institution's banking book, use only the simple approach to the treatment of recognized collateral; and
  - (c) for exposures booked in the institution's trading book, use only the comprehensive approach to the treatment of recognized collateral.

# 79. Collateral which may be recognized for purposes of section 77(i)(i)

For the purposes of section 77(i)(i), only collateral of the following description may be recognized in relation to an authorized institution which uses the simple approach in its treatment of recognized collateral—

- (a) cash on deposit with the institution or held at a third-party bank;
- (b) certificates of deposit issued by the institution;
- (c) instruments issued by the institution which are comparable to instruments referred to in paragraph (b);
- (*d*) gold bullion;
- (e) debt securities issued by a sovereign which have a long-term ECAI issue specific rating which, if mapped to the scale of credit quality grades in Table A in Schedule 6, would result in the debt securities being assigned a credit quality grade of 1, 2, 3 or 4;
- (f) debt securities (other than restricted debt securities) issued by a sovereign foreign public sector entity which have an ECAI issue specific rating which, if mapped to the scale of credit quality grades in Table A in Schedule 6 as if they were securities issued by a sovereign, would result in the debt securities being assigned a credit quality grade of 1, 2, 3 or 4;

- (g) debt securities issued by a domestic public sector entity or foreign public sector entity (other than a sovereign foreign public sector entity) which have an ECAI issue specific rating which, if mapped to the scale of credit quality grades in Table A in Schedule 6 as if they were securities issued by a sovereign, would result in the debt securities being assigned a credit quality grade of 1, 2 or 3;
- (*h*) debt securities issued by a multilateral development bank;
- (i) debt securities issued by a bank or securities firm which have a long-term ECAI issue specific rating which, if mapped to the scale of credit quality grades in Table B in Schedule 6, would result in the debt securities being assigned a credit quality grade of 1, 2 or 3;
- (*j*) debt securities issued by a corporate which have a long-term ECAI issue specific rating which, if mapped to the scale of credit quality grades in Table C in Schedule 6, would result in the debt securities being assigned a credit quality grade of 1, 2 or 3;
- (k) debt securities issued by a sovereign, public sector entity or sovereign foreign public sector entity which have a short-term ECAI issue specific rating which, if mapped to the scale of credit quality grades in Table E in Schedule 6 as if they were securities issued by a bank, securities firm or corporate, would result in the debt securities being assigned a credit quality grade of 1, 2 or 3;
- (1) debt securities issued by a bank, securities firm or corporate which have a short-term ECAI issue specific rating which, if mapped to the scale of credit quality grades in Table E in Schedule 6, would result in the debt securities being assigned a credit quality grade of 1, 2 or 3;
- (*m*) debt securities issued by a bank or securities firm which do not have an ECAI issue specific rating where—
  - (i) the debt securities are not subordinated to any other debt obligations of the issuer of the debt securities;
  - (ii) the debt securities are listed on a recognized exchange and the institution is of the reasonable opinion that, having regard to current market conditions, there is sufficient liquidity in the market for the debt securities to enable the institution to dispose of the debt securities at an open market price;

- (iii) other debt securities issued by the same issuer which have an ECAI issue specific rating and rank equally with the first-mentioned debt securities, have an ECAI issue specific rating which, if mapped to the scale of credit quality grades in Table B in Schedule 6 (or, in the case of exposures with short-term ECAI issue specific ratings, in Table E in Schedule 6) would result in those other debt securities being assigned a credit quality grade of 1, 2 or 3; and
- (iv) the institution is not aware, and has no reason to be aware, of information suggesting that an assignment of a credit quality grade of 4 or 5 in Table B in Schedule 6 (or, in the case of short-term ECAI issue specific ratings, a credit quality grade of 4 in Table E in Schedule 6) would be justified in respect of the debt securities;
- (n) equities (including convertible bonds) which are included in any main indices;
- (o) units or shares in a collective investment scheme where—
  - (i) the price of the units or shares in that scheme is quoted publicly on a daily basis; and
  - (ii) that scheme is restricted by its investment guidelines or objects to investing in those items listed in these Rules as being recognized collateral for the purposes of using the simple approach to the treatment of recognized collateral; or
- (*p*) collateral in the form of real property (whether residential or otherwise) insofar as the collateral relates to a past due exposure.

# 80. Collateral which may be recognized for purposes of section 77(i)(ii)

For the purposes of section 77(i)(ii), only collateral of the following description may be recognized in relation to an authorized institution which uses the comprehensive approach in its treatment of recognized collateral—

- (a) recognized collateral falling within section 79(a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n) or (o);
- (b) equities (including convertible bonds) which are not included in a main index but are listed on a recognized exchange;
- (c) units or shares in collective investment schemes which may invest in equities referred to in paragraph (b); or
- (d) securities received by the institution under a transaction—
  - (i) which falls within paragraph (c) or (d) of the definition of "repo-style transaction" in section 2(1); and
  - (ii) which is booked in the institution's trading book.

### Division 6—Use of recognized collateral in credit risk mitigation: simple approach

### 81. Calculation of risk-weighted amount of exposures taking into account credit risk mitigation effect of recognized collateral under simple approach

(1) Where an authorized institution uses the simple approach in its treatment of recognized collateral, the institution shall, in respect of an exposure of the institution to which the collateral relates—

- (*a*) subject to subsections (2), (3) and (4), allocate to the credit protection covered portion of the exposure the risk-weight of the collateral; and
- (b) allocate to the credit protection uncovered portion of the exposure the risk-weight of the exposure.
- (2) Where recognized collateral consists of collateral—
  - (a) which falls within section 79(a), (b) or (c);
  - (b) which is held at a third-party bank in a non-custodial arrangement; and
  - (c) which is unconditionally and irrevocably pledged or assigned to an authorized institution,

the institution shall allocate to the credit protection covered portion of the exposure the attributed risk-weight of the third-party bank.

- (3) Where—
  - (a) an exposure is a past due exposure; and
  - (b) the recognized collateral provided in respect of the exposure is real property,

an authorized institution shall allocate a risk-weight of 100% to the credit protection covered portion.

(4) Where recognized collateral is real property, an authorized institution shall, for the purposes of making a substitution pursuant to subsection (1)(a), reduce the current market value of the real property by—

- (a) 10% in the case of residential property;
- (b) 20% in the case of any other real property.

# 82. Determination of risk-weight to be allocated to recognized collateral under simple approach

(1) Where an authorized institution uses the simple approach in its treatment of recognized collateral, the institution—

- (a) subject to paragraph (b), shall determine the risk-weight to be allocated to the collateral in accordance with sections 55, 56, 57, 58, 59, 60, 61, 62, 63, 66 and 68 as if the collateral were an on-balance sheet exposure; and
- (b) subject to subsections (2), (3) and (4), shall not allocate a risk-weight of less than 20% to the collateral.

(2) Subject to subsection (3), an authorized institution may under subsection (1) allocate a risk-weight of 0% to recognized collateral provided under a repo-style transaction booked in the institution's banking book which falls within paragraph (c) or (d) of the definition of "repo-style transaction" in section 2(1) where—

- (a) the counterparty is—
  - (i) a sovereign;
  - (ii) a public sector entity;
  - (iii) a multilateral development bank;
  - (iv) a bank or securities firm;
  - (v) a corporate (other than a bank or securities firm)—
    - (A) which is an investment company, insurance firm, finance company or other like financial institution; and
    - (B) which has an attributed risk-weight of not more than 20%; or
  - (vi) a clearing organization (other than a restricted clearing organization) the activities or objects of which include—
    - (A) the provision of services for the clearing and settlement of transactions in, or the day-to-day adjustment of the financial position of, futures contracts or option contracts effected on an exchange;
    - (B) the provision of services for the clearing and settlement of transactions in securities effected on an exchange;
    - (C) the provision of services for the clearing and settlement of payment obligation; or
    - (D) the provision of guarantees for the settlement of any transactions which fall within sub-subparagraph (A), (B) or (C);
- (b) the exposure to which the collateral relates and the collateral are—
  - (i) cash; or
  - (ii) securities issued by a sovereign, or a sovereign foreign public sector entity, which would be allocated a risk-weight of 0% under the use of the STC approach;
- (c) the exposure and the collateral have no currency mismatch;
- (d) either—
  - (i) the exposure is only an overnight exposure; or

- (ii) the exposure and the collateral are revalued daily by marking-to-market, and based on the marked-to-market value of the exposure and the collateral—
  - (A) the value of any excess collateral (referred to in this subsection as "margin") is calculated daily; and
  - (B) if the margin is below the value required under the terms of the transaction, the counterparty is required to bring the margin up to the required value on the same day;
- (e) the institution reasonably expects, if the counterparty fails to deliver any shortfall in margin required to be delivered to the institution under the terms of the transaction, to be able to realize the collateral for its benefit within 4 business days after the counterparty's failure to deliver the shortfall in margin;
- (f) the transaction is settled by means of a settlement system customarily used for repo-style transactions;
- (g) the transaction is documented using standard market documentation for the securities which are the subject matter of the transaction; and
- (h) the documentation setting out the transaction provides that-
  - (i) the institution may terminate the transaction immediately if—
    - (A) the counterparty commits an event of default under the transaction; or
    - (B) an event of default occurs in respect of the counterparty; and
  - (ii) the institution has, immediately upon any such default, an unfettered and legally enforceable right to seize and realize the collateral for its benefit, whether or not the counterparty is insolvent or bankrupt.

(3) Where the recognized collateral is provided to an authorized institution under a repo-style transaction which satisfies all the provisions of subsection (2) except paragraph (a) of that subsection, the institution may under subsection (1) allocate a risk-weight of 10% to the collateral.

- (4) An authorized institution may under subsection (1)—
  - (a) allocate a risk-weight of 0% to recognized collateral provided under an OTC derivative transaction or a credit derivative contract where—
    - (i) the transaction or contract is marked-to-market daily and is collateralized by cash provided to the institution; and
    - (ii) the settlement currency of the transaction or contract and the cash provided to the institution as collateral have no currency mismatch;

- (b) allocate a risk-weight of 10% to recognized collateral which is provided under an OTC derivative transaction or a credit derivative contract where—
  - (i) the transaction or contract is marked-to-market daily, and is collateralized by debt securities issued by a sovereign, or a sovereign foreign public sector entity, which would under section 55 or 57, as the case may be, be allocated a riskweight of 0%; and
  - (ii) the settlement currency of the transaction or contract and the collateral provided to the institution have no currency mismatch;
- (c) allocate a risk-weight of 0% to recognized collateral which falls within paragraph (c) of the definition of "cash items" in section 51;
- (d) allocate a risk-weight of 0% to recognized collateral provided in the case of any financial transaction where—
  - (i) the collateral and the exposure to which the collateral relates have no currency mismatch; and
  - (ii) the collateral is either—
    - (A) cash; or
    - (B) debt securities—
      - (I) which are issued by a sovereign, or a sovereign foreign public sector entity, and would under section 55 or 57, as the case may be, be allocated a risk-weight of 0%; and
      - (II) the current market value of which has been reduced by a haircut of 20%.
- (5) In this section—

"cash" (現金)—

- (a) in relation to an exposure, means money paid by an authorized institution to a counterparty under a repo-style transaction;
- (b) in relation to a collateral, means recognized collateral which falls within section 79(a), (b) or (c), other than collateral held at a third-party bank in a non-custodial arrangement.

# 83. Calculation of risk-weighted amount of on-balance sheet exposures

An authorized institution shall calculate the risk-weighted amount of each of its on-balance sheet exposures by—

- (a) dividing the principal amount of the exposure, net of specific provisions, into—
  - (i) the credit protection covered portion; and
  - (ii) the credit protection uncovered portion;

- (b) multiplying the credit protection covered portion by the riskweight attributable to the recognized collateral and multiplying the credit protection uncovered portion by the risk-weight attributable to the exposure; and
- (c) adding together the  $\overline{2}$  products derived from the application of paragraph (b).

# 84. Calculation of risk-weighted amount of off-balance sheet exposures other than OTC derivative transactions

An authorized institution shall calculate the risk-weighted amount of each of its off-balance sheet exposures which is not an OTC derivative transaction by—

- (a) dividing the principal amount of the exposure, net of specific provisions, into—
  - (i) the credit protection covered portion; and
  - (ii) the credit protection uncovered portion;
- (b) multiplying the credit protection covered portion and the credit protection uncovered portion by the CCF applicable to the offbalance sheet exposure to produce 2 credit equivalent amounts;
- (c) multiplying the credit equivalent amount of the credit protection covered portion by the risk-weight attributable to the recognized collateral and multiplying the credit equivalent amount of the credit protection uncovered portion by the risk-weight attributable to the exposure; and
- (d) adding together the 2 products derived from the application of paragraph (c).

# 85. Calculation of risk-weighted amount of OTC derivative transactions

An authorized institution shall calculate the risk-weighted amount of each of its off-balance sheet exposures which is an OTC derivative transaction by—

- (a) multiplying the principal amount of the transaction by the applicable CCF to ascertain the potential exposure of the institution in respect of the transaction and adding the current exposure of the institution in respect of the transaction to derive the credit equivalent amount of the transaction;
- (b) dividing the credit equivalent amount of the transaction, net of specific provisions, into—
  - (i) the credit protection covered portion; and
  - (ii) the credit protection uncovered portion.

- (c) multiplying the credit equivalent amount of the credit protection covered portion by the risk-weight attributable to the recognized collateral and multiplying the credit equivalent amount of the credit protection uncovered portion by the risk-weight attributable to the exposure; and
- (d) adding together the 2 products derived from the application of paragraph (c).

### Division 7—Use of recognized collateral in credit risk mitigation: comprehensive approach

### 86. Calculation of risk-weighted amount of exposures taking into account credit risk mitigation effect of recognized collateral under comprehensive approach

(1) Where an authorized institution uses the comprehensive approach in its treatment of recognized collateral, the institution shall calculate the risk-weighted amount of its on-balance sheet exposures and off-balance sheet exposures in accordance with sections 87, 88, 89, 90, 91, 92 and 93.

(2) Schedule 7 contains provisions relating to the use of standard supervisory haircut in the treatment of recognized collateral.

# 87. Calculation of net credit exposure of on-balance sheet exposures

An authorized institution shall calculate its net credit exposure to an obligor in respect of an on-balance sheet exposure by the use of Formula 2.

### FORMULA 2

CALCULATION OF NET CREDIT EXPOSURE TO OBLIGOR UNDER ON-BALANCE SHEET EXPOSURE

$$E^* = \max \{0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\}$$

where----

 $E^*$  = net credit exposure;

E = principal amount of on-balance sheet exposure net of specific provisions, if any;

- H<sub>e</sub> = haircut applicable to the authorized institution's exposure to the obligor pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92;
- C = current market value of the recognized collateral before adjustment required by the comprehensive approach to the treatment of recognized collateral;
- $H_c$  = haircut applicable to the recognized collateral pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92; and
- $H_{fx}$  = haircut applicable in consequence of a currency mismatch, if any, pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92.

### 88. Calculation of net credit exposure of off-balance sheet exposures other than credit derivative contracts booked in trading book or OTC derivative transactions

An authorized institution shall calculate its net credit exposure to an obligor in respect of an off-balance sheet exposure (other than a credit derivative contract booked in the trading book of the institution or an OTC derivative transaction) by the use of Formula 3.

### FORMULA 3

#### CALCULATION OF NET CREDIT EXPOSURE TO OBLIGOR UNDER OFF-BALANCE SHEET EXPOSURE OTHER THAN CREDIT DERIVATIVE CONTRACT BOOKED IN THE TRADING BOOK AND OTC DERIVATIVE TRANSACTION

$$E^* = \max \{0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\} \times CCF$$

### where----

 $E^*$  = net credit exposure;

E = principal amount of off-balance sheet exposure net of specific provisions, if any;

- H<sub>e</sub> = haircut applicable to the authorized institution's exposure to the obligor pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92;
- C = current market value of the recognized collateral before adjustment required by the comprehensive approach to the treatment of recognized collateral;
- $H_c$  = haircut applicable to the recognized collateral pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92;
- $H_{fx}$  = haircut applicable in consequence of a currency mismatch, if any, pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92; and
- CCF = CCF applicable to the off-balance sheet exposure.

### 89. Calculation of net credit exposure of credit derivative contracts booked in trading book and OTC derivative transactions

An authorized institution shall calculate its net credit exposure to a counterparty in respect of a credit derivative contract booked in the trading book of the institution, or an OTC derivative transaction, by the use of Formula 4.

### FORMULA 4

### CALCULATION OF NET CREDIT EXPOSURE TO COUNTERPARTY UNDER CREDIT DERIVATIVE CONTRACT BOOKED IN TRADING BOOK OR OTC DERIVATIVE TRANSACTION

$$E^* = \max \{0, [E - C \times (1 - H_c - H_{fx})]\}$$

where----

 $E^*$  = net credit exposure;

- E = credit equivalent amount of off-balance sheet exposure (calculated by aggregating the potential exposure and current exposure in respect of the credit derivative contract or OTC derivative transaction, as the case may be) net of specific provisions, if any;
- C = current market value of the recognized collateral before adjustment required by the comprehensive approach to the treatment of recognized collateral;
- H<sub>c</sub> = haircut applicable to the recognized collateral pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92; and
- $H_{fx}$  = haircut applicable in consequence of a currency mismatch, if any, pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92.

### 90. Haircuts

Where a basket of recognized collateral which consists of more than one type of recognized collateral is provided to an authorized institution in respect of an exposure of the institution, the institution shall calculate the haircut applicable to the basket of recognized collateral by the use of Formula 5.

### FORMULA 5

### CALCULATION OF HAIRCUT WHERE MORE THAN ONE TYPE OF RECOGNIZED COLLATERAL IS PROVIDED IN RESPECT OF SAME EXPOSURE

 $H_a = \sum_i a_i \times H_i$ 

- $H_a$  = haircut applicable to the basket of recognized collateral;
- a<sub>i</sub> = weight of a given type of recognized collateral in relation to the aggregate value of all types of recognized collateral provided in respect of the exposure; and
- $H_i$  = haircut applicable to that given type of recognized collateral pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral subject to adjustment as set out in section 92.