## 103. Maturity mismatches

(1) Where the credit protection provided in respect of an exposure of an authorized institution (other than the netting of repo-style transactions, OTC derivative transactions and credit derivative contracts) has a residual maturity which is shorter than the residual maturity of the exposure (referred to in this section as "maturity mismatch"), the institution shall adjust the value of the credit protection by the use of Formula 12.

#### FORMULA 12

Adjustment of Calculation of Value of Credit Protection where there is Maturity Mismatch

$$P_a = P \times (t - 0.25) / (T - 0.25)$$

where—

P<sub>a</sub> = value of credit protection adjusted for maturity mismatch;

P = value of credit protection adjusted by standard supervisory haircuts for price volatility of collateral and currency mismatch (if applicable);

t = Min (T, residual maturity of credit protection) expressed in years; and

T = Min (5, residual maturity of the exposure) expressed in years.

- (2) Where there is a maturity mismatch, the institution, in calculating its risk-weighted amount of the exposure—
  - (a) shall take into account the credit protection only if the credit protection has an original maturity of not less than one year;
  - (b) shall not take into account the credit protection once it has a residual maturity of not more than 3 months; and
  - (c) shall not take into account the credit protection if the credit protection is in the form of recognized collateral and the risk-weighted amount of the exposure is calculated by using the simple approach to the treatment of recognized collateral.
- (3) For the purposes of calculating the respective maturities of an exposure of an authorized institution and any credit protection covering the exposure—
  - (a) if the credit protection is in the form of recognized collateral, guarantees or credit derivative contracts, the institution shall, at any time before the obligor in respect of the exposure to which the credit protection relates performs the obligor's obligations, take the effective maturity of the exposure to be the longest possible remaining time after taking into account any applicable grace period provided for in the terms of the exposure;

- (b) if the terms of the credit protection provide for an option which may reduce the term of that credit protection, the institution shall take into account the option and the earliest possible date upon which it may be exercised;
- (c) if the terms of the credit protection provide that the credit protection provider may terminate the credit protection before its maturity, the institution shall take the maturity of the credit protection to be the first date upon which the credit protection provider may so terminate the credit protection; and
- (d) if the terms of the credit protection permit the institution to terminate the credit protection before its maturity and there is a positive incentive for the institution to exercise its discretion so to do, the institution shall take the maturity of the credit protection to be the time left to run before the earliest date upon which the institution may exercise the discretion.
- (4) For the purposes of this section, the original maturity and residual maturity of credit protection which is recognized collateral falling within section 79(a) shall be taken to be the period for which it will continue to fulfil the requirements of section 77 applicable to the credit protection.

#### PART 5

CALCULATION OF CREDIT RISK FOR NON-SECURITIZATION EXPOSURES: BSC APPROACH

#### **Division 1—General**

## 104. Application of Part 5

- (1) This Part applies to an authorized institution which uses the BSC approach to calculate its credit risk for non-securitization exposures.
- (2) Unless the context otherwise requires, a reference to an authorized institution in this Part is a reference to an authorized institution which uses the BSC approach to calculate its credit risk for non-securitization exposures.

## 105. Interpretation of Part 5

In this Part, unless the context otherwise requires—

"attributed risk-weight" (歸屬風險權重), in relation to a person to whom an authorized institution has an exposure, means the risk-weight which would be attributable, in accordance with sections 109, 110, 111, 112, 113 and 116, to—

- (a) the person as the obligor; or
- (b) the exposure;
- "cash items" (現金項目), in relation to an authorized institution, means all or any of the following—
  - (a) legal tender notes or other notes, and coins, representing the lawful currency of a country held by the institution;
  - (b) the institution's holdings of certificates of indebtedness issued by the Government for the issue of legal tender notes;
  - (c) gold bullion held by the institution, or gold bullion held on an allocated basis for the institution by another person, which is backed by gold bullion liabilities;
  - (d) gold bullion held on an unallocated basis for the institution by another person which is backed by gold bullion liabilities;
  - (e) gold bullion held by the institution, or gold bullion held for the institution by another person, which is not backed by gold bullion liabilities;
  - (f) cheques, drafts and other items drawn on other banks—
    - (i) which are payable to the account of the institution immediately upon presentation; and
    - (ii) which are in the process of collection;
  - (g) unsettled clearing items of the institution which are being processed through any interbank clearing system in Hong Kong;
  - (h) receivables from transactions in securities (other than repo-style transactions), foreign exchange, and commodities which are not yet due for settlement;
  - (i) positive current exposure incurred by the institution under transactions in securities (other than repo-style transactions), foreign exchange, and commodities—
    - (i) which are entered into on a delivery-versus-payment basis; and
    - (ii) which are outstanding after the settlement date in respect of the transaction concerned;
  - (j) the amounts of payment made or the current market value of the thing delivered, and the positive current exposure incurred, by the institution under transactions in securities (other than repostyle transactions), foreign exchange, and commodities—
    - (i) which are entered into on a non-delivery-versus-payment basis; and
    - (ii) which are outstanding up to and including the fourth business day after the settlement date in respect of the transaction concerned;

- "credit equivalent amount" (信貸等值數額), in relation to an off-balance sheet exposure, means the credit equivalent amount of the exposure calculated under section 118 or 120, as the case requires;
- "credit protection covered portion" (信用保障涵蓋部分), in relation to an exposure of an authorized institution which is covered by recognized collateral, a recognized guarantee or a recognized credit derivative contract, means that portion of the exposure (which may be all of the exposure) which is covered by the current market value of the recognized collateral, or the maximum liability of the credit protection provider to the institution under the recognized guarantee or recognized credit derivative contract, as the case may be;
- "credit protection uncovered portion" (不受信用保障涵蓋部分), in relation to an exposure of an authorized institution which is covered by recognized collateral, a recognized guarantee or a recognized credit derivative contract, means that portion of the exposure which is not covered by the current market value of the recognized collateral, or the maximum liability of the credit protection provider to the institution under the recognized guarantee or recognized credit derivative contract, as the case may be;
- "debt securities" (債務證券) means any securities other than shares, stocks or import or export trade bills;
- "exposure" (風險承擔), in relation to an authorized institution, means a credit exposure (including an asset) of the institution;
- "non-qualifying reference obligation" (不合資格參照義務) means a reference obligation which is not a qualifying reference obligation;
- "principal amount" (本金額)—
  - (a) in relation to an on-balance sheet exposure of an authorized institution, means the book value (including accrued interest and revaluations) of the exposure;
  - (b) in relation to an off-balance sheet exposure of an authorized institution, means—
    - (i) subject to subparagraph (ii), in the case of an exposure listed in Table 14, the contracted amount of the exposure;
    - (ii) in the case of an exposure listed in Table 14 which is an undrawn facility or the undrawn portion of a partially drawn facility, the amount of the undrawn commitment;
    - (iii) subject to subparagraph (iv), in the case of an exposure listed in Table 15, the notional amount of the exposure;
    - (iv) in the case of an exposure listed in Table 15 where the stated notional amount of the exposure is leveraged or enhanced by the structure of the exposure, the effective notional amount of the exposure taking into account that the stated notional amount is so leveraged or enhanced, as the case may be;

- "qualifying reference obligation" (合資格參照義務) means a reference obligation which falls within section 287(4) or is issued by a sovereign with a credit quality grade of 1, 2 or 3 as determined in accordance with section 287; "recognized collateral" (認可抵押品) means collateral recognized under section 124:
- "recognized credit derivative contract" (認可信用衍生工具合約) means—
  - (a) a credit derivative contract recognized under section 133(1); or
  - (b) a credit derivative contract which falls within section 133(2) or (3) to the extent that it is deemed under that section to be a recognized credit derivative contract;
- "recognized guarantee" (認可擔保) means a guarantee recognized under section 132:
- "Tier 2 country" (第 2 級國家) means any country which is not a Tier 1 country.

# Division 2—Calculation of credit risk under BSC approach, exposures to be covered in calculation, and classification of exposures

## 106. Calculation of risk-weighted amount of exposures

- (1) Subject to section 107, an authorized institution shall calculate an amount representing the degree of credit risk to which the institution is exposed by aggregating—
  - (a) the risk-weighted amount of the institution's on-balance sheet exposures; and
  - (b) the risk-weighted amount of the institution's off-balance sheet exposures.
  - (2) For the purposes of subsection (1)(a)—
    - (a) subject to paragraph (b), an authorized institution shall calculate the risk-weighted amount of the institution's on-balance sheet exposures by multiplying the principal amount of each such exposure, net of specific provisions, by the relevant risk-weight attributable to the exposure determined under Division 3;
    - (b) an authorized institution may reduce the risk-weighted amount of the institution's on-balance sheet exposure by taking into account the effect of any recognized credit risk mitigation in respect of the exposure in the manner set out in Divisions 5, 6, 7 and 8.

- (3) For the purposes of subsection (1)(b)—
  - (a) subject to paragraph (b), an authorized institution shall calculate the risk-weighted amount of the institution's off-balance sheet exposures by—
    - (i) in the case of any such exposure which is an OTC derivative transaction or credit derivative contract—
      - (A) converting the principal amount of the exposure into its credit equivalent amount in the manner set out in section 118 or 120, as the case requires; and
      - (B) multiplying the credit equivalent amount, net of specific provisions, by the exposure's relevant risk-weight determined under section 121;
    - (ii) in any other case—
      - (A) converting the principal amount of each such exposure, net of specific provisions, into its credit equivalent amount in the manner set out in section 118 or 120, as the case requires; and
      - (B) multiplying the credit equivalent amount by the exposure's relevant risk-weight determined under section 121;
  - (b) an authorized institution may reduce the risk-weighted amount of the institution's off-balance sheet exposure by taking into account the effect of any recognized credit risk mitigation in respect of the exposure in the manner set out in Divisions 5, 6, 7 and 8.

# 107. On-balance sheet exposures and off-balance sheet exposures to be covered

An authorized institution shall, for the purposes of calculating an amount representing the degree of credit risk to which the institution is exposed under section 106, take into account and risk-weight—

- (a) all of the institution's on-balance sheet exposures and off-balance sheet exposures booked in its banking book except such exposures—
  - (i) which under sections 48 and 49 are required to be deducted from any of the institution's core capital and supplementary capital; or
  - (ii) which are subject to the requirements of Part 7;
- (b) all of the institution's exposures to counterparties under credit derivative contracts, OTC derivative transactions, or repo-style transactions, booked in its trading book; and

(c) all of the institution's market risk exposures which are exempted from section 17 under section 22 except for its total net open position in foreign exchange exposures as derived in accordance with section 296.

### 108. Classification of exposures

An authorized institution shall classify each of its exposures, according to the obligor or the nature of the exposure, into one only of the following classes—

- (a) sovereign exposures;
- (b) public sector entity exposures;
- (c) multilateral development bank exposures;
- (d) bank exposures;
- (e) cash items;
- (f) residential mortgage loans; or
- (g) other exposures.

## Division 3—Determination of risk-weights applicable to on-balance sheet exposures

## 109. Sovereign exposures

- (1) Subject to section 110, an authorized institution shall allocate a risk-weight to a sovereign exposure in accordance with the following provisions.
- (2) Where an exposure of an authorized institution to a sovereign of a Tier 1 country arises from a loan by the institution to the sovereign, the institution shall allocate a risk-weight of 0% to the exposure.
- (3) Where an exposure of an authorized institution to a sovereign of a Tier 1 country arises from—
  - (a) fixed rate debt securities with a residual maturity of less than one year, which are issued by the sovereign and held by the institution; or
  - (b) floating rate debt securities of any maturity, which are issued by the sovereign and held by the institution,

the institution shall allocate a risk-weight of 10% to the exposure.

- (4) Where an exposure of an authorized institution to a sovereign of a Tier 1 country arises from fixed rate debt securities with a residual maturity of not less than one year, which are issued by the sovereign and held by the institution, the institution shall allocate a risk-weight of 20% to the exposure.
- (5) Where an exposure of an authorized institution arises in respect of a guarantee given by a sovereign of a Tier 1 country of—

- (a) any fixed rate debt securities with a residual maturity of less than one year, which are held by the institution; or
- (b) any floating rate debt securities of any maturity, which are held by the institution,

the institution shall allocate a risk-weight of 10% to the exposure.

- (6) Where an exposure of an authorized institution arises in respect of a guarantee given by a sovereign of a Tier 1 country of any fixed rate debt securities with a residual maturity of not less than one year, which are held by the institution, the institution shall allocate a risk-weight of 20% to the exposure.
  - (7) Where—
    - (a) an exposure of an authorized institution to a sovereign of a Tier 2 country arises from a loan by the institution to the sovereign; and
- (b) the exposure is a domestic currency exposure, the institution shall allocate a risk-weight of 0% to the exposure.
  - (8) Where—
    - (a) an exposure of an authorized institution to a sovereign of a Tier 2 country arises from—
      - (i) fixed rate debt securities with a residual maturity of less than one year, which are issued by the sovereign and held by the institution; or
      - (ii) floating rate debt securities of any maturity, which are issued by the sovereign and held by the institution; and
- (b) the exposure is a domestic currency exposure, the institution shall allocate a risk-weight of 10% to the exposure.
  - (9) Where—
    - (a) an exposure of an authorized institution to a sovereign of a Tier 2 country arises from fixed rate debt securities with a residual maturity of not less than one year, which are issued by the sovereign and held by the institution; and
- (b) the exposure is a domestic currency exposure, the institution shall allocate a risk-weight of 20% to the exposure.
  - (10) Where—
    - (a) an exposure of an authorized institution arises in respect of a guarantee given by a sovereign of a Tier 2 country of—
      - (i) any fixed rate debt securities with a residual maturity of less than one year, which are held by the institution; or
      - (ii) any floating rate debt securities of any maturity, which are held by the institution; and
    - (b) the securities are denominated in the local currency of the Tier 2 country, and funded by liabilities entered into by the institution in that currency,

the institution shall allocate a risk-weight of 10% to the exposure.

- (11) Where—
  - (a) an exposure of an authorized institution arises in respect of a guarantee given by a sovereign of a Tier 2 country of any fixed rate debt securities with a residual maturity of not less than one year, which are held by the institution; and
  - (b) the securities are denominated in the local currency of the Tier 2 country, and funded by liabilities entered into by the institution in that currency,

the institution shall allocate a risk-weight of 20% to the exposure.

- (12) Where an exposure of an authorized institution to a sovereign of a Tier 2 country does not fall within subsection (7), (8), (9), (10) or (11), the institution shall allocate a risk-weight of 100% to the exposure.
- (13) For the avoidance of doubt, it is hereby declared that, for the purposes of this section, an exposure of an authorized institution to the Government includes an exposure of the institution to the Exchange Fund.

## 110. Exceptions to section 109

Where an exposure of an authorized institution to a sovereign consists of an exposure to a relevant international organization, the institution shall allocate a risk-weight of 0% to the exposure.

## 111. Public sector entity exposures

An authorized institution shall allocate a risk-weight of—

- (a) 20% to an exposure of the institution to a public sector entity of a Tier 1 country; and
- (b) 100% to an exposure of the institution to a public sector entity of a Tier 2 country.

## 112. Multilateral development bank exposures

An authorized institution shall allocate a risk-weight of 0% to an exposure of the institution to a multilateral development bank.

## 113. Bank exposures

An authorized institution shall allocate a risk-weight of—

(a) 20% to an exposure of the institution to a bank which falls within paragraph (a) of the definition of "bank" in section 2(1);

- (b) 20% to an exposure of the institution to a bank which falls within paragraph (b) of the definition of "bank" in section 2(1) and which is incorporated in a Tier 1 country;
- (c) 20% to an exposure of the institution, with a residual maturity of less than one year, to a bank which falls within paragraph (b) of the definition of "bank" in section 2(1) and which is incorporated in a Tier 2 country; and
- (d) 100% to an exposure of the institution, with a residual maturity of not less than one year, to a bank which falls within paragraph (b) of the definition of "bank" in section 2(1) and which is incorporated in a Tier 2 country.

#### 114. Cash items

An authorized institution shall allocate a risk-weight of 0% to all cash items in relation to the institution except that—

- (a) in the case of cash items which fall within paragraph (d) of the definition of "cash items" in section 105, the institution shall allocate a risk-weight which is the same as the attributed risk-weight of the person who holds the gold bullion concerned;
- (b) in the case of cash items which fall within paragraph (e) of the definition of "cash items" in section 105, the institution shall allocate a risk-weight of 100%;
- (c) in the case of cash items which fall within paragraph (f) of the definition of "cash items" in section 105, the institution shall allocate a risk-weight of 20%;
- (d) in the case of cash items which fall within paragraph (i) of the definition of "cash items" in section 105, and the transactions to which the items relate remain outstanding for 5 or more business days after the settlement date, the institution shall allocate a risk-weight of—
  - (i) 100% for such items in relation to the transactions which remain so outstanding from 5 to 15 business days (both days inclusive);
  - (ii) 625% for such items in relation to the transactions which remain so outstanding from 16 to 30 business days (both days inclusive);
  - (iii) 937.5% for such items in relation to the transactions which remain so outstanding from 31 to 45 business days (both days inclusive); and
  - (iv) 1,250% for such items in relation to the transactions which remain so outstanding for 46 or more business days; and

(e) in the case of cash items which fall within paragraph (j) of the definition of "cash items" in section 105, the institution shall allocate a risk-weight which is the same as the attributed risk-weight of the obligor in respect of the transaction to which the items relate.

### 115. Residential mortgage loans

- (1) Subject to subsections (2) and (3), an authorized institution shall allocate a risk-weight of 50% to a residential mortgage loan in relation to the institution where—
  - (a) the borrower under the loan is—
    - (i) one or more than one individual; or
    - (ii) a property-holding shell company;
  - (b) the loan is secured by a first legal charge on one or more than one residential property;
  - (c) each residential property which falls within paragraph (b) is—
    - (i) if paragraph (a)(i) is applicable, used, or intended for use, as the residence of the borrower or as the residence of a tenant, or a licensee, of the borrower;
    - (ii) if paragraph (a)(ii) is applicable, used, or intended for use, as the residence of the directors or shareholders of the borrower or as the residence of a tenant, or a licensee, of the borrower:
  - (d) the loan-to-value ratio of the loan does not exceed 90% at the time a commitment to extend the loan was made by the institution, or in relation to a residential mortgage loan purchased by the institution, at the time the loan was purchased; and
  - (e) if the borrower under the loan is a property-holding shell company—
    - (i) all of the borrowed-monies obligations of the company arising under the loan are the subject of a personal guarantee—
      - (A) which is entered into by one or more than one director or shareholder (referred to in this paragraph as "guarantor") of the company; and
      - (B) which fully and effectively covers those obligations;
    - (ii) the institution, having due regard to the guarantor's financial obligations (including, in particular, all the guarantor's borrowed-monies obligations and obligations of suretyship), is satisfied that the guarantor is able to discharge all the guarantor's obligations under the guarantee; and

- (iii) the loan has been assessed by reference to substantially similar credit underwriting standards (including loan purpose and loan-to-value and debt service ratios) as would normally be applied by the institution to an individual.
- (2) Where, in respect of a residential mortgage loan made or purchased by an authorized institution, any residential property which falls within subsection (1)(b) is situated outside Hong Kong, the institution may allocate a risk-weight to the loan generally provided for under the supervisory treatment, or capital adequacy requirements, applicable to banks carrying on banking business in the jurisdiction in which the residential property is situated.
- (3) Subject to subsection (4), an authorized institution shall, for the purposes of the application of subsection (1)(d) to a residential mortgage loan, exclude from the calculation of the loan-to-value ratio of a residential mortgage loan made or purchased by the institution any portion of the loan amount which has been provided by a person who is not a member of the group of companies of which the institution is a member.
- (4) The Monetary Authority may, by notice in writing given to an authorized institution, direct the institution, in calculating—
  - (a) the loan-to-value ratio of a residential mortgage loan specified in the notice; or
- (b) the loan-to-value ratio of a residential mortgage loan belonging to a class of residential mortgage loans specified in the notice, to include a portion of the loan amount which would otherwise be excluded pursuant to subsection (3).
- (5) An authorized institution given a notice under subsection (4) shall comply with the notice.
  - (6) In this section—
- "loan-to-value ratio" (貸款與價值比率), in relation to a residential mortgage loan, means the ratio of the sum of the following amounts to the market value of the security—
  - (a) the principal amount of that loan; and
  - (b) the principal amount of all other residential mortgage loans in respect of which the residential property falling within subsection (1)(b) is also used as security.

## 116. Other 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 109, 110, 111, 112, 113, 114 and 115 (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.

#### 117. 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 109, 110, 111, 112, 113, 114, 115 and 116 as if the institution had a direct exposure to the reference obligation; and
- (b) the attributed risk-weight of the issuer of the note.

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

## 118. 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 14; 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 14 opposite the exposure.

## TABLE 14

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

Item	Off-balance sheet exposures	CCF
1.	Direct credit substitutes	100%
2.	Transaction-related contingencies	50%
3.	Trade-related contingencies	20%
4.	Asset sales with recourse	100%
5.	Forward asset purchases	100%
6.	Partly paid-up shares and securities	100%
7.	Forward forward deposits placed	100%
8.	Note issuance and revolving underwriting facilities	50%
9.	Commitments which do not fall within any of items 1, 2, 3, 4, 5, 6, 7 and 8 and—	
	(a) subject to paragraph (d), which have an original maturity of not more than one year;	20%
	(b) subject to paragraph (d), which have an original maturity of more than one year;	50%
	(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;	0%
	(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 120,	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

Item

## Off-balance sheet exposures

**CCF** 

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 119, 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 15; 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 15 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 15 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 15

## 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	1%
	one year; (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%

#### Item

## Off-balance sheet exposures

**CCF** 

where—

"excluded exchange rate contract" (豁除匯率合約) means—

- (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
- (b) a forward exchange rate contract entered into by the authorized institution pursuant to a swap deposit arrangement with an obligor;

"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—

- (a) with a residual maturity of not more than 0% one year;
- (b) with a residual maturity of more than one year but not more than 5 years;
- (c) with a residual maturity of more than 5 years. 1.5%

#### 3. Equity contracts—

- (a) with a residual maturity of not more than one year;
- (b) with a residual maturity of more than one year but not more than 5 years;
- (c) with a residual maturity of more than 5 years. 10%

Item	Off-balance sheet exposures	CCF
4.	Precious metal contracts—  (a) with a residual maturity of not more than one year;	7%
	(b) with a residual maturity of more than one year but not more than 5 years;	7%
	(c) with a residual maturity of more than 5 years.	8%
5.	Debt security contracts or other commodity contracts—	
	(a) with a residual maturity of not more than one year;	10%
	(b) with a residual maturity of more than one year but not more than 5 years;	12%
	(c) with a residual maturity of more than 5 years.	15%
6.	Credit derivative contracts which are—  (a) credit default swaps booked in the trading book—  (i) where the authorized institution is a protection buyer and the reference obligation is—  (A) a qualifying reference obligation;  (B) a non-qualifying reference obligation;  (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—	5% 10%
	<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 default swap does not fall within subparagraph (ii) and the reference obligation is—</li> </ul>	5% 10%
	<ul> <li>(A) a qualifying reference obligation;</li> <li>(B) a non-qualifying reference obligation;</li> <li>(b) total return swaps booked in the trading book—</li> </ul>	0% 0%

Item Off-balance

### Off-balance sheet exposures

**CCF** 

- (i) where the authorized institution is a protection buyer and the reference obligation is—
  - (A) a qualifying reference obligation;
    (B) a non-qualifying reference obligation:
    10%
- (B) a non-qualifying reference obligation; (ii) where the authorized institution is a

protection seller and the reference obligation is—

(A) a qualifying reference obligation; 5%

(B) a non-qualifying reference obligation, 10%

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 15.

## 119. Provisions supplementary to section 118

For the purposes of the operation of section 118 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 off-balance 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-to-default 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 14 based on the original maturity of the commitment.

## 120. Calculation of credit equivalent amount of other off-balance sheet exposures not specified in Table 14 or 15

An authorized institution shall, in calculating the risk-weighted amount of an off-balance sheet exposure which is not specified in Table 14 or 15, 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 118(1) or (2), as the case requires, with all necessary modifications.

## 121. 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 109, 110, 111, 112, 113, 115 and 116 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 risk-weight 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 subsection (3), 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) subject to paragraph (b), the institution shall, for the purposes of that subsection, aggregate the risk-weights of the reference obligations in the basket of reference obligations specified in the contract to determine the risk-weight to be allocated to its exposure in respect of the contract; and

- (b) the institution 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
  - subject to paragraph (b), the institution shall, for the purposes of that subsection, aggregate the risk-weights of the reference obligations in the basket of reference obligations specified in the contract to determine the risk-weight to be allocated to its exposure in respect of the contract but excluding the lowest of those risk-weights; and
  - (b) the institution 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)(a) 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 contracts.
- (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 13.

#### FORMULA 13

CALCULATION OF RISK-WEIGHT OF CREDIT DERIVATIVE CONTRACT WHICH FALLS WITHIN SECTION 121(6)

$$RW_a = \sum_i a_i \times RW_i$$

where—

 $RW_a$  = average risk-weight in a basket of reference obligations;  $a_i$  = proportion of credit protection allocated to a reference

obligation; and

RW<sub>i</sub> = risk-weight of a reference obligation.

(7) For the avoidance of doubt, it is hereby declared that where an off-balance 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 115 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.

# 122. 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.

# 123. 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 122(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

## 124. 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) the collateral—
  - (i) is pledged for not less than the life of the exposure; and
  - (ii) is revalued not less than every 6 months from the date upon which the collateral is taken in respect of the exposure; and
- (h) the collateral falls within section 125(a), (b), (c), (d), (e), (f) or (g).

## 125. Collateral which may be recognized for purposes of section 124(h)

For the purposes of section 124(h), only collateral of the following description may be recognized in relation to an authorized institution—

- (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) debt securities issued or guaranteed by a sovereign of a Tier 1 country;
- (e) debt securities issued or guaranteed by a relevant international organization;
- (f) debt securities issued by a public sector entity of a Tier 1 country; or
- (g) debt securities issued by a multilateral development bank.

# 126. Calculation of risk-weighted amount of exposures taking into account credit risk mitigation effect of recognized collateral

- (1) An authorized institution shall, in respect of an exposure of the institution to which the recognized collateral relates—
  - (a) subject to subsections (2) and (3), 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 the recognized collateral consists of collateral—
    - (a) which falls within section 125(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) An authorized institution shall, for the purposes of subsection (1)(a) or (2) where the exposure and the recognized collateral have currency mismatch, reduce the value of the collateral by a standard haircut of 8%.
- (4) An authorized institution shall determine the risk-weight to be allocated to the recognized collateral in accordance with sections 109, 110, 111, 112, 113, 114, 115 and 116.

## 127. 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 risk-weight 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 2 products derived from the application of paragraph (b).

## 128. 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 off-balance 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).

## 129. 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 6—Use of recognized netting in credit risk mitigation

### 130. On-balance sheet netting

- (1) Where amounts owed by an obligor to an authorized institution in respect of on-balance sheet exposures of the institution are subject to recognized netting, the institution—
  - (a) may take into account the effect of the recognized netting in calculating its exposure to the obligor; and
  - (b) if a net credit exposure for the institution is the result of so taking into account the effect of the recognized netting, shall use the net credit exposure in calculating the risk-weighted amount of the exposure.
- (2) An authorized institution shall calculate its net credit exposure, if any, referred to in subsection (1)(b) by the use of Formula 14.

#### FORMULA 14

## CALCULATION OF NET CREDIT EXPOSE UNDER RECOGNIZED NETTING

Net credit exposure = max  $[0, exposures - liabilities \times (1 - H_{fx})]$ 

where—

exposures = the amounts subject to recognized netting, net of specific provisions, owed by the obligor to the authorized institution;

liabilities = the amounts subject to recognized netting owed by the authorized institution to the obligor; and

H<sub>fx</sub> = the 8% haircut to be applicable in consequence of a currency mismatch, if any, between the currencies in which the exposures and liabilities are denominated.

(3) Where an authorized institution has a net credit exposure to an obligor after taking into account recognized netting, the institution shall calculate the risk-weighted amount of the net credit exposure by multiplying the net credit exposure by the attributed risk-weight of the obligor.

# 131. Netting of OTC derivative transactions and netting of credit derivative contracts booked in trading book

- (1) Where an authorized institution's exposure to a counterparty is under a nettable derivative transaction (whether or not the recognized netting concerned relates to more than one type of nettable derivative transaction), the institution may, in accordance with subsections (2) and (3), take into account the effect of the recognized netting in calculating the risk-weighted amount of its net credit exposure to the counterparty.
- (2) Subject to subsection (3), an authorized institution shall calculate the credit equivalent amount of its net credit exposure to a counterparty by adding together—
  - (a) the net current exposure (being the sum of the positive and negative mark-to-market replacement costs of the individual nettable derivative transactions subject to recognized netting if the sum is positive); and
  - (b) the net potential exposure calculated by the use of Formula 15.

#### FORMULA 15

CALCULATION OF NET POTENTIAL EXPOSURE UNDER NETTABLE DERIVATIVE TRANSACTIONS

$$A_{Net} = 0.4 \times A_{Gross} + 0.6 \times NGR \times A_{Gross}$$

where—

 $A_{Net}$  = the net potential exposure;

A<sub>Gross</sub> = the sum of the individual amounts derived by multiplying the principal amounts of all of the individual nettable derivative transactions by the applicable CCFs; and

- NGR = the ratio of net replacement cost for the nettable derivative transactions (that is, the non-negative sum of the positive and negative mark-to-market replacement costs of the transactions) to gross replacement cost for the nettable derivative transactions (that is, the sum of the positive mark-to-market replacement costs of the transactions).
- (3) An authorized institution, in the application of Formula 15 in respect of its nettable derivative transactions, shall calculate the NGR in that Formula either on a per counterparty basis, or on an aggregate basis.

- (4) An authorized institution shall allocate to the credit equivalent amount of its net credit exposure to the counterparty calculated in accordance with subsection (2), net of specific provisions, the attributed risk-weight of the counterparty.
  - (5) In this section—
- "aggregate basis" (總和基準), in relation to the calculation of the NGR in Formula 15, means the ratio of the sum of the net replacement costs for all nettable derivative transactions with each counterparty to the sum of gross replacement costs for all nettable derivative transactions with each counterparty;
- "derivative transaction" (衍生工具交易) means—
  - (a) an OTC derivative transaction; or
  - (b) a credit derivative contract booked in the trading book;
- "per counterparty basis" (每位對手方基準), in relation to the calculation of the NGR in Formula 15, means the ratio of net replacement cost to gross replacement cost for the nettable derivative transactions with a particular counterparty.

## Division 7—Use of recognized guarantees and recognized credit derivative contracts in credit risk mitigation

## 132. Recognized guarantees

A guarantee given to an authorized institution is recognized for the purposes of calculating the risk-weighted amount of an exposure of the institution where—

- (a) the guarantee is given by—
  - (i) a sovereign of a Tier 1 country;
  - (ii) a sovereign of a Tier 2 country where the underlying exposures are—
    - (A) denominated in the local currency of that country; and
    - (B) funded by liabilities entered into by the institution in that currency;
  - (iii) a relevant international organization;
  - (iv) a public sector entity of a Tier 1 country;
  - (v) a multilateral development bank;
  - (vi) a bank which falls within paragraph (a) of the definition of "bank" in section 2(1);
  - (vii) a bank which falls within paragraph (b) of the definition of "bank" in section 2(1) and which is incorporated in a Tier 1 country; or

- (viii) a bank which falls within paragraph (b) of the definition of "bank" in section 2(1) and which is incorporated in a Tier 2 country but only in respect of exposures of the institution with a residual maturity of less than one year,
- in each case having been allocated a lower risk-weight than that allocated to the exposure in respect of which the guarantee has been given (referred to in this section as "guaranteed exposure");
- (b) the guarantee gives the institution a direct claim against the guarantor;
- (c) the credit protection provided by the guarantee relates to a specific exposure, specific exposures, or specific pools of exposures, of the institution;
- (d) the undertaking of the guarantor to make payment in specified circumstances relating to the guaranteed exposure is clearly documented so that the extent of the credit protection provided by the guarantee is clearly defined;
- (e) there is no clause in the guarantee, the satisfaction of which is outside the direct control of the institution, which would allow the guaranter to cancel the guarantee unilaterally or which would increase the effective cost of the credit protection provided by the guarantee as a result of the deteriorating credit quality of the guaranteed exposure except for a clause permitting termination in the event of a failure by the institution to pay sums due from it under the terms of the guarantee;
- (f) there is no clause in the guarantee, the satisfaction of which is outside the direct control of the institution, which could operate to prevent the guarantor from being obliged to pay out promptly in the event that the obligor in respect of the guaranteed exposure defaults in making any payments due to the institution in respect of the guaranteed exposure;
- (g) the country in which the guarantor is located and from which the guarantor may be obliged to make payment has no existing exchange controls in place or, if there are existing exchange controls in place, approval has been obtained for the funds to be remitted freely in the event that the guarantor is called upon under the terms of the guarantee to make payment to the institution;
- (h) the guarantor has no recourse to the institution for any losses suffered as a result of the guarantor being obliged to make any payment to the institution pursuant to the guarantee;

- (i) the institution has the right to receive payment from the guarantor without having to take legal action in order to pursue the obligor in respect of the guaranteed exposure for payment; and
- (j) the guarantee is binding on all parties and legally enforceable in all relevant jurisdictions.

## 133. Recognized credit derivative contracts

- (1) A credit derivative contract entered into by an authorized institution as a protection buyer is recognized for the purposes of calculating the risk-weighted amount of an exposure of the institution where—
  - (a) the credit derivative contract is a credit default swap or total return swap (other than a restricted return swap);
  - (b) the protection seller of the credit derivative contract is—
    - (i) a sovereign of a Tier 1 country;
    - (ii) a sovereign of a Tier 2 country where the institution's exposures to which the credit derivative contract relates are—
      - (A) denominated in the local currency of that country; and
      - (B) funded by liabilities entered into by the institution in that currency;
    - (iii) a relevant international organization;
    - (iv) a public sector entity of a Tier 1 country;
    - (v) a multilateral development bank;
    - (vi) a bank which falls within paragraph (a) of the definition of "bank" in section 2(1);
    - (vii) a bank which falls within paragraph (b) of the definition of "bank" in section 2(1) and which is incorporated in a Tier 1 country; or
    - (viii) a bank which falls within paragraph (b) of the definition of "bank" in section 2(1) and which is incorporated in a Tier 2 country but only in respect of exposures of the institution with a residual maturity of less than one year,
    - in each case having been allocated a lower risk-weight than that allocated to the exposure in respect of which the credit derivative contract has been entered into (referred to in this section as "protected exposure");
  - (c) the economic benefit derived by the institution would make good the economic loss suffered by the institution in consequence of the default of the obligor in respect of the protected exposure in a manner substantially similar to that of a recognized guarantee;

- (d) the credit derivative contract gives the institution a direct claim against the protection seller;
- (e) the credit protection provided by the credit derivative contract relates to a specific exposure, specific exposures, or specific pools of exposures, of the institution;
- (f) the undertaking of the protection seller under the credit derivative contract to make payment in specified circumstances relating to the protected exposure is clearly documented so that the extent of the credit protection provided by the credit derivative contract is clearly defined;
- (g) there is no clause in the credit derivative contract, the satisfaction of which is outside the direct control of the institution, which would allow the protection seller to cancel the contract unilaterally or which would increase the effective cost of the credit protection offered by the credit derivative contract as a result of the deteriorating credit quality of the protected exposure except for a clause permitting termination in the event of a failure by the institution to pay sums due from it under the terms of the credit derivative contract;
- (h) there is no clause in the credit derivative contract, the satisfaction of which is outside the direct control of the institution, which could operate to prevent the protection seller from being obliged to pay out promptly in the event that the obligor in respect of the protected exposure defaults in making any payments due to the institution in respect of the protected exposure;
- (i) the country in which the protection seller is located and from which the protection seller may be obliged to make payment has no existing exchange controls in place or, if there are existing exchange controls in place, approval has been obtained for the funds to be remitted freely in the event that the protection seller is called upon under the terms of the credit derivative contract to make payment to the institution;
- (j) the protection seller has no recourse to the institution for any losses suffered as a result of the protection seller being obliged to make any payment to the institution pursuant to the credit derivative contract;
- (k) the credit derivative contract obliges the protection seller to make payment to the institution in the following credit events—

- (i) any failure by the obligor in respect of the protected exposure to pay amounts due under the terms of the protected exposure (subject to any grace period in the contract which is of substantially similar duration to any grace period provided for in the terms of the protected exposure);
- (ii) the bankruptcy or insolvency of (or analogous events affecting) the obligor in respect of the protected exposure or the obligor's failure or inability to pay its debts as they fall due or the obligor's admission in writing of the obligor's inability generally to pay its debts as they fall due; or
- (iii) subject to subsections (2) and (3), the protected exposure is restructured, involving forgiveness or postponement of payment of any principal or interest or fees, which results in the institution making any deduction or specific provision or other similar debit to the institution's profit and loss account;
- (1) in any case where the protected exposure provides a grace period within which the obligor may make good a default in payment, the credit derivative contract is not capable of terminating prior to the expiry of the grace period;
- (m) in any case where the credit derivative contract provides for settlement in cash, it provides an adequate mechanism for valuation of the loss occasioned to the institution in respect of the protected exposure and specifies a reasonable period within which that valuation is to be arrived at following a credit event;
- (n) in any case where the reference obligation or the obligation used for the purposes of determining whether a credit event has occurred as specified in the credit derivative contract (referred to in this paragraph as "specified obligation") does not include or is different from the protected exposure—
  - (i) the specified obligation of the credit derivative contract ranks for payment or repayment equally with, or junior to, the protected exposure; and
  - (ii) the obligor in respect of the protected exposure is the same person as the obligor in respect of the specified obligation and legally enforceable cross default or cross acceleration clauses are included in the terms of both the protected exposure and the specified obligation;

- (o) in any case where under the terms of the credit derivative contract it is a condition of settlement that the institution transfers its rights in respect of the protected exposure to the protection seller, the terms of the protected exposure provide that any consent which may be required from the obligor in respect of the protected exposure shall not be unreasonably withheld;
- (p) the credit derivative contract specifies clearly the identity of the person who is empowered to determine whether a credit event has occurred, that person is not solely the protection seller and the institution is, under the terms of the credit derivative contract, entitled to inform the protection seller of the occurrence of a credit event; and
- (q) the credit derivative contract is binding on all parties and legally enforceable in all relevant jurisdictions.
- (2) Where any restructuring of the protected exposure to which a credit derivative contract relates does not, under the terms of the contract, require payment by the protection seller to the authorized institution concerned but the maximum liability of the protection seller to the institution under the credit derivative contract is more than the amount of the protected exposure, the contract shall be deemed to be a recognized credit derivative contract to the extent of 60% of the amount of the protected exposure.
- (3) Where any restructuring of the protected exposure to which a credit derivative contract relates does not, under the terms of the contract, require payment by the protection seller to the authorized institution concerned but the maximum liability of the protection seller to the institution under the credit derivative contract is less than, or equal to, the amount of the protected exposure, the contract shall be deemed to be a recognized credit derivative contract to the extent of 60% of the maximum liability of the protection seller to the institution under the credit derivative contract.
- (4) In this section—
  "restricted return swap" (受限制回報掉期), in relation to an authorized institution, means a total return swap where—
  - (a) the institution is the protection buyer under the swap; and
  - (b) the institution records the net payments received by it under the swap as net income but does not record, through deductions in fair value in the accounts of the institution or by an addition to reserves or provisions, the extent to which the value of the protected exposure has deteriorated.

## 134. Capital treatment of recognized guarantees and recognized credit derivative contracts

- (1) Subject to subsections (2), (3), (4), (5) and (6), where an authorized institution's exposure is covered by a recognized guarantee or recognized credit derivative contract, the institution may allocate to the exposure the attributed risk-weight of the credit protection provider.
  - (2) Subject to subsections (3), (4) and (5), where—
    - (a) the credit protection covered portion of an authorized institution's exposure is covered by a recognized guarantee or recognized credit derivative contract; and
    - (b) the credit protection covered portion and the credit protection uncovered portion of the exposure rank equally,

the institution shall—

- (c) allocate to the credit protection covered portion of the exposure the attributed risk-weight of the credit protection provider;
- (d) allocate to the credit protection uncovered portion of the exposure the risk-weight attributable to the exposure.
- (3) Where a guarantor referred to in subsection (1) is a sovereign, then, for the purposes of that subsection, the risk-weight attributable to the guarantor shall be that attributable under section 109(2), (7) or (12), as the case requires.
- (4) Sections 127, 128 and 129 shall, with all necessary modifications, apply to an authorized institution in relation to the calculation of the risk-weighted amount of exposures covered by recognized guarantees or recognized credit derivative contracts.
- (5) Where in respect of an authorized institution's exposure covered by a recognized guarantee or recognized credit derivative contract there is a currency mismatch, then, to the extent that a calculation required by subsection (4) by the institution relates to that guarantee or contract, as the case may be, the institution shall reduce the credit protection covered portion by a standard haircut of 8%.
- (6) Where the credit protection covered portion of an authorized institution's exposure—
  - (a) is such credit protection covered portion by virtue of a recognized guarantee (referred to in this subsection as "original guarantee"); and
- (b) is the subject of a counter-guarantee given by a sovereign, the institution may, in respect of the credit protection covered portion, treat the counter-guarantee as if it were the original guarantee if—
  - (c) the counter-guarantee covers all credit risk elements of the exposure to the extent that it relates to the credit protection covered portion;

- (d) the counter-guarantee is given in such terms that it can be called if for any reason the obligor in respect of the exposure to which the original guarantee relates fails to make payments due in respect of the exposure and if the original guarantee could be called:
- (e) the original guarantee and the counter-guarantee meet all of the requirements for guarantees set out in section 132 (except that the counter-guarantee need not be a guarantee given directly and explicitly with respect to the institution's exposure to which the original guarantee relates); and
- (f) the institution reasonably considers the cover of the counterguarantee to be adequate and effective and there is no evidence to suggest that the coverage of the counter-guarantee is less effective than that of a direct and explicit guarantee by the sovereign which gives the counter-guarantee.

## 135. Provisions supplementary to section 134

- (1) Where the credit protection in respect of an authorized institution's exposure consists of a recognized credit derivative contract which is a credit default swap or total return swap—
  - (a) if upon the happening of a credit event the protection seller is obliged to pay the amount specified in the contract to the institution in exchange for delivery by the institution of the deliverable obligation specified in the contract, the institution may treat the exposure as being fully covered;
  - (b) if upon the happening of a credit event the protection seller is obliged to pay the amount specified in the contract to the institution less the market value of the reference obligation specified in the contract, calculated by specified calculation agents at some specified point in time after the credit event has occurred, the institution may treat the exposure as being fully covered; and
  - (c) if upon the happening of a credit event the protection seller is obliged to pay a fixed amount to the institution, the institution may only treat that amount of the exposure which is equivalent to the fixed amount as being fully covered.
- (2) Where the credit protection in respect of an authorized institution's exposure consists of a recognized credit derivative contract which provides that, upon the happening of a credit event—
  - (a) the protection seller is not obliged to make a payment in respect of any loss until the loss exceeds a specified amount (referred to in this subsection as "first loss portion"); and

(b) the protection seller is not obliged to make a payment in respect of any loss except to the extent that the loss exceeds the first loss portion,

the institution shall, in calculating its capital adequacy ratio, deduct the first loss portion from its core capital and supplementary capital.

- (3) Where the credit protection in respect of a basket of exposures of an authorized institution consists of a recognized first-to-default credit derivative contract—
  - (a) the institution shall recognize that credit protection for the exposure in the basket of exposures which would carry the lowest risk-weighted amount in the absence of the credit protection amongst the exposures in the basket only if the principal amount of the exposure is not more than the notional amount of the contract; and
  - (b) in the case of such credit protection so recognized, the institution may allocate to the exposure within the basket which would carry the lowest risk-weighted amount in the absence of the credit protection the attributed risk-weight of the credit protection provider.
- (4) Where the credit protection in respect of a basket of exposures of an authorized institution consists of a recognized second-to-default credit derivative contract, the institution may, to the extent of the coverage of the credit protection, allocate to the exposure within the basket which would carry the second lowest risk-weighted amount in the absence of the credit protection the attributed risk-weight of the credit protection provider only if—
  - (a) the institution has, as a protection buyer, entered into a recognized first-to-default credit derivative contract in respect of which the basket of reference obligations, or the basket of obligations used for the purposes of determining whether a credit event has occurred as specified in the contract, is the same as the basket of reference obligations or the basket of obligations used for the purposes of determining whether a credit event has occurred as specified in the second-to-default credit derivative contract (referred to in this subsection as "relevant basket"); or
  - (b) an exposure in the relevant basket has defaulted.
- (5) Where the credit protection in respect of a basket of exposures of an authorized institution consists of a recognized subsequent-to-default credit derivative contract, the institution may, 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—

- (a) the reference to "a recognized first-to-default credit derivative contract in respect of which the basket of reference obligations, or the basket of obligations used for the purposes of determining whether a credit event has occurred as specified in the contract" in subsection (4)(a) is construed to mean "recognized first-to-default and second-to-default credit derivative contracts in respect of which the basket of reference obligations, or the basket of obligations used for the purposes of determining whether a credit event has occurred as specified in each contract"; and
- (b) the reference to "an exposure in the relevant basket has" in subsection (4)(b) is construed to mean "2 exposures in the relevant basket have".

in the case of a third-to-default credit derivative contract and likewise for other subsequent-to-default credit derivative contracts.

(6) Where the credit protection in respect of a basket of exposures of an authorized institution is a credit derivative contract which provides credit protection proportionately to reference obligations in the basket of reference obligations as specified in the contract, the institution shall calculate the risk-weighted amount of its exposures by substituting the attributed risk-weight of the credit protection provider for the risk-weights of the exposures to the extent of the coverage of the credit protection.

## (7) Where—

- (a) an authorized institution has entered into a transaction under which a portion of the credit risk of an exposure it has is transferred in one or more than one tranche to one or more than one credit protection provider, and the other portion of the credit risk of the exposure is retained by the institution; and
- (b) the portion of credit risk transferred and the portion of the credit risk retained are of different seniority,

the institution shall treat the transaction as a securitization transaction and determine the treatment of the exposure in accordance with the relevant provisions of Part 7.

- (8) Where the credit protection in respect of an authorized institution's exposure takes the form of an issue of credit-linked notes by the institution, the institution—
  - (a) may only treat that amount of the exposure which is equivalent to the cash funding received from the notes as being fully covered;
  - (b) shall treat the credit protection covered portion of the exposure as an exposure collateralized by cash deposit; and
  - (c) shall deduct from the institution's core capital and supplementary capital the first loss portion, being any specified amount of loss, upon the happening of a credit event, below which the protection seller is not obliged to share in the loss.

## Division 8—Multiple recognized credit risk mitigation and maturity mismatches

## 136. Multiple recognized credit risk mitigation

- (1) Where in respect of a single exposure of an authorized institution to an obligor, 2 or more forms of recognized credit risk mitigation have been used by the institution, the institution shall calculate the risk-weighted amount of the exposure in accordance with these Rules by dividing the exposure into the portions which respectively represent the proportions of the exposure covered by each of the forms of recognized credit risk mitigation so used.
- (2) Where in respect of a single exposure of an authorized institution to an obligor, there is an overlap of coverage between 2 or more forms of recognized credit risk mitigation used by the institution, the institution may select, in respect of the portion of the exposure covered by the overlap, the recognized credit risk mitigation which result in the lowest risk-weighted amount of that portion of the exposure covered by the overlap.
- (3) Where an authorized institution has an exposure to an obligor in the form of a general banking facility consisting of 2 or more credit lines—
  - (a) the institution may, in calculating its risk-weighted amount in respect of the credit lines, allocate any credit protection taken in respect of the exposure amongst the individual exposures under each of the credit lines; and
  - (b) if the institution exercises its discretion under paragraph (a), the institution shall aggregate the risk-weighted amounts of the individual exposures under each of the credit lines to determine the total risk-weighted amount of the exposure in respect of the general banking facility.

## 137. Maturity mismatches

- (1) Where the credit protection provided in respect of an exposure of an authorized institution (other than the netting of OTC derivative transactions and credit derivative contracts) has a residual maturity which is shorter than the residual maturity of the exposure, the institution shall not take into account the credit risk mitigation effect of that credit protection for the purposes of this Part.
- (2) For the purposes of calculating the respective maturities of an exposure of an authorized institution and any credit protection covering the exposure—

- (a) if the credit protection is in the form of recognized collateral, guarantees or credit derivative contracts, the institution shall, at any time before the obligor in respect of the exposure to which the credit protection relates performs the obligor's obligations, take the effective maturity of the exposure to be the longest possible remaining time after taking into account any applicable grace period provided for in the terms of the exposure;
- (b) if the terms of the credit protection provide for an option which may reduce the term of that credit protection, the institution shall take into account the option and the earliest possible date upon which it may be exercised;
- (c) if the terms of the credit protection provide that the credit protection provider may terminate the credit protection before its maturity, the institution shall take the maturity of the credit protection to be the first date upon which the credit protection provider may so terminate the credit protection; and
- (d) if the terms of the credit protection permit the institution to terminate the credit protection before its maturity and there is a positive incentive for the institution to exercise its discretion so to do, the institution shall take the maturity of the credit protection to be the time left to run before the earliest date upon which the institution may exercise the discretion.
- (3) For the purposes of this section, the residual maturity of credit protection which is recognized collateral falling within section 125(a) shall be taken to be the period for which it will continue to fulfil the requirements of section 124 applicable to the credit protection.

## PART 6

CALCULATION OF CREDIT RISK FOR NON-SECURITIZATION EXPOSURES: IRB APPROACH

#### **Division 1—General**

## 138. Application of Part 6

- (1) This Part applies to an authorized institution which uses the IRB approach to calculate its credit risk for non-securitization exposures.
- (2) Unless the context otherwise requires, a reference to an authorized institution in this Part is a reference to an authorized institution which uses the IRB approach to calculate its credit risk for non-securitization exposures.