Annex 1

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# **BANKING (CAPITAL) (AMENDMENT) RULES 2012**

Subject to change

**Reference version for consultation only** 

#### **BANKING (CAPITAL) (AMENDMENT) RULES 2012**

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#### BANKING (CAPITAL) (AMENDMENT) RULES 2012

(Made by the Monetary Authority under section 97C of the Banking Ordinance (Cap. 155) after consultation with the Financial Secretary, the Banking Advisory Committee, the Deposit-taking Companies Advisory Committee, The Hong Kong Association of Banks and The DTC Association)

#### 1. Commencement

- (1) Subject to subsection (2), these Rules come into operation on 1 January 2013.
- (2) Sections 3(11) to (15), 4, 6, 8, 9, 14(2), 15(1) and (3), 43(2), 44(1) and (3), 58(2), 60(1) and (3), 81 and 83 come into operation on  $[...]^1$ .

<sup>&</sup>lt;sup>1</sup> Subject to the implementation date to be announced by the Basel Committee.

### 2. Banking (Capital) Rules amended

The Banking (Capital) Rules (Cap. 155 sub. leg.L) are amended as set out in sections 3 to 100.

#### **3.** Section 2 amended (interpretation)

(1) Section 2(1)-

#### Repeal the definition of *back-testing*

#### Substitute

"back-testing (

- )-
- (a) subject to paragraph (b), in relation to the use of an internal model by an authorized institution, means a process whereby the daily changes in the value of a portfolio of exposures of the institution are compared with the daily VaR generated from the institution's internal model applicable to that portfolio; or
- (b) in relation to the use of an internal model by an authorized institution to calculate counterparty credit risk, means a process whereby the realized values of risk measures and the hypothetical changes based on static positions are compared to the values of the risk measures forecast by the model;".
- (2) Section 2(1)-

#### Repeal the definition of credit derivative contract

#### Substitute

*"credit derivative contract (* 

) means-

- (a) a forward contract, swap contract, option contract or similar derivative contract entered into by 2 parties with the intention to transfer credit risk in relation to a reference obligation from one party (*protection buyer*) to the other party (*protection seller*); or
- (b) a long settlement transaction-
  - (i) that falls within paragraph (a); or
  - (ii) of which the counterparty credit risk profile is similar to that of a contract that falls within paragraph (a);".
- (3) Section 2(1), definition of *derivative contract*, after paragraph (b)-

Add

- "(c) means a long settlement transaction-
  - (i) that falls within paragraph (a); or
  - (ii) of which the counterparty credit risk profile is similar to that of a contract that falls within paragraph (a);".
- (4) Section 2(1), definition of *long-term ECAI issue specific rating*, paragraphs (a) and (b)-

#### Repeal

"79(e)"

#### Substitute

"79(1)(e)".

(5) Section 2(1)-

#### Repeal the definition of *nettable*

#### Substitute

"*nettable* ( ), in relation to an exposure (however described) of an authorized institution, means that the exposure is-

- (a) subject to paragraph (b), subject to a valid bilateral netting agreement;
- (b) in the case of the calculation of default risk exposure using the IMM(CCR) approach, subject to a valid bilateral netting agreement or a valid cross-product netting agreement;".
- (6) Section 2(1)-

#### Repeal the definition of *potential exposure*

#### Substitute

"*potential exposure* ( ), in relation to the current exposure method, means the principal amount (within the meaning of section 51(1), 105, 139(1) or 227(1), as the case requires) of a transaction or contract multiplied by the applicable CCF;".

(7) Section 2(1), definition of *recognized credit risk mitigation*-

#### Repeal paragraphs (c) and (d)

#### Substitute

- "(c) a recognized guarantee (within the meaning of section 51(1), 105 or 139(1), as the case requires);
  - (d) a recognized credit derivative contract (within the meaning of section 51(1), 105 or 139(1), as the case requires); or
  - (e) collateral that falls within section 226G(3),".
- (8) Section 2(1)-

#### Repeal the definition of recognized netting

#### Substitute

#### "recognized netting (

) means any netting done pursuant to-

- (a) a valid bilateral netting agreement; or
- (b) in the case of the calculation of default risk exposure using the IMM(CCR) approach-
  - (i) a valid bilateral netting agreement; or
  - (ii) a valid cross-product netting agreement;".
- (9) Section 2(1), definition of *short-term ECAI issue specific rating*, paragraphs (a) and (b)-

#### Repeal

"79(k)"

#### Substitute

"79(1)(k)".

(10) Section 2(1)-

#### Add in alphabetical order

<i>"advanced CVA method</i> ( section 226A(1);		) has the meaning given by
<b>ССР</b> (	) means a cer	ntral counterparty;
СЕМ (	) means the	current exposure method;

*CEM risk-weighted amount* ( ), in relation to derivative contracts entered into by an authorized institution, means the sum of the default risk risk-weighted amounts for all the counterparties to the contracts where the default risk risk-weighted amount for each of the counterparties is calculated as the product of-

- (a) the outstanding default risk exposure to the counterparty calculated by using the current exposure method; and
- (b) the risk-weight applicable to the default risk exposure determined under-
  - (i) the BSC approach;
  - (ii) the STC approach; or
  - (iii) the IRB approach,

as the case requires;

## *central counterparty* ( ), in relation to a portfolio of

contracts traded in one or more financial markets, means a person who-

(a) interposes between the counterparties to the contracts by becoming the buyer to every seller and the seller to every buyer under the contracts; and

) means-

(b) is responsible for the operation of a clearing system;

#### counterparty credit risk (

- (a) the counterparty default risk; and
- (b) the CVA risk;

*counterparty default risk* ( ), in relation to a derivative contract or securities financing transaction entered into by an authorized institution with a counterparty, means the risk that the counterparty could default before the final settlement of the cash flows of the contract or transaction, as the case may be;

*credit valuation adjustment* ( ), in relation to the calculation by an authorized institution of counterparty credit risk in respect of a counterparty, means an adjustment made by the institution to the valuation of a netting set with the counterparty to reflect the market value of the credit risk of that counterparty;

*credit valuation adjustment capital charge* ( ), in relation to the calculation by an authorized institution of counterparty credit risk in respect of a counterparty, means the amount of regulatory capital that the institution is required to hold for the CVA risk of the counterparty;

#### current exposure method (

(a) in relation to an off-balance sheet exposure to a counterparty under an OTC derivative transaction or credit derivative contract that is not covered by a valid bilateral netting agreement, means the method set out in section 71(2), 73, 118(2), 120, 165, 166, 181 or 182, as the case requires, for calculating the credit equivalent amount of the exposure;

)-

- (b) in relation to an off-balance sheet exposure that is a net credit exposure to a counterparty arising from a portfolio of OTC derivative transactions or credit derivative contracts covered by a valid bilateral netting agreement, means the method set out in section 95, 131 or 209(2), as the case requires, for calculating the credit equivalent amount of the exposure;
- CVA ( ) means a credit valuation adjustment;
- *CVA capital charge* ( ) means a credit valuation adjustment capital charge;
- *CVA loss* ( ), in relation to the calculation by an authorized institution of the outstanding default risk exposure to a counterparty, means the CVA (or a portion thereof) for the counterparty that has been recognized by the institution as an incurred write-down, where the amount of the incurred write-down is calculated-
  - (a) without taking into account any offsetting debit valuation adjustments that have been deducted from the capital base of the institution under section  $[..]^2$ ; and
  - (b) net of any debit valuation adjustments that have not been deducted from the capital base of the institution;
- *CVA risk* ( ) has the meaning given by section 226A(1);

 $<sup>^{2}</sup>$  The section is for the implementation of paragraph 75 of the Basel III framework and the contents of the section will be included in the 2<sup>nd</sup> batch of amendment rules for implementation of revised definition of capital.

- *CVA risk-weighted amount* ( ), in relation to an authorized institution and the CVA capital charge for a counterparty, means that amount calculated by the institution by multiplying the CVA capital charge by 12.5;
- *default risk exposure* ( ), in relation to the calculation by an authorized institution of counterparty credit risk in respect of a netting set with a counterparty, means the institution's exposure to the counterparty default risk of the counterparty and-
  - (a) subject to paragraphs (b) and (e), if the netting set falls within paragraph (b) of the definition of *netting set* in section 226A(1) and the transaction concerned is an OTC derivative transaction or credit derivative contract, the amount of that exposure is the credit equivalent amount (within the meaning of section 51(1), 105, 139(1) or 227(1), as the case requires) calculated using the current exposure method;
  - (b) subject to paragraph (e), if the netting set falls within [paragraph (a)] of the definition of *netting set* in section 226A(1) and the transactions [within the netting set] <u>OR</u> [concerned] are OTC derivative transactions or credit derivative contracts, the amount of that exposure is the credit equivalent amount of net credit exposure (in the case of section 95 or 131, as the case requires) or the EAD (in the case of section 209(2)), as the case may be, calculated using the current exposure method;
  - (c) subject to paragraphs (d) and (e), if the netting set falls within paragraph (b) of the definition of *netting set* in section 226A(1) and the transaction concerned is an SFT, the amount of that exposure is the principal amount of securities sold or lent, or the money paid or lent, or the securities or money provided as collateral, as the case requires, under the SFT;
  - (d) subject to paragraph (e), if the netting set falls within paragraph (a) of the definition of *netting set* in section 226A(1) and the transactions within the netting set are SFTs, the amount of that exposure is the net credit exposure of the SFTs calculated under section 96, 97 or 209(3), as the case requires; and
  - (e) if the netting set is covered by an IMM(CCR) approval, the amount of that exposure is the amount calculated under section 226D(1) using the IMM(CCR) approach;

- *IMM(CCR) approach* ( ) means the internal model (counterparty credit risk) approach;
- *IMM(CCR) approval* ( ) means an approval to use the IMM (CCR) approach granted by the Monetary Authority under section 10B(2)(a);
- *IMM(CCR) risk-weighted amount* ( ) means the amount calculated under section 226C;
- *internal model (counterparty credit risk) approach* ( ) means the method of calculating an authorized institution's default risk exposure set out in Division 2 of Part 6A;
- *long settlement transaction* ( ), in relation to the calculation by an authorized institution of counterparty credit risk, means a transaction where a counterparty undertakes to deliver a security, commodity or foreign currency amount against cash, other financial instruments or commodities, or vice versa, at a settlement or delivery date that is [contractually] specified [in the transaction] as being more than the lower of-
  - (a) the market standard applicable to a transaction of this type; or
  - (b) 5 business days after the date on which the institution enters into the transaction;

#### *margin agreement* ( 226A(1);

) has the meaning given by section

*margin lending transaction* ( ), in relation to the calculation of counterparty credit risk by an authorized institution-

- (a) subject to paragraph (b), means a transaction under which a person extends credit in connection with the purchase, sale, carrying or trading of securities; and
- (b) excludes a transaction under which the credit extended is-
  - (i) secured by securities; and
  - (ii) in connection with a matter other than the purchase, sale, carrying or trading of securities;

*margin period of risk* ( ) has the meaning given by section 226A(1);

<i>minimum transfer amount</i> ( section 226A(1);		<i>nsfer amount</i> ( ) has the meaning given by n 226A(1);	
netting	g set (	) has the meaning given by section 226A(1);	
<i>outstanding default risk exposure</i> ( ), in relation to a counterparty with whom the transactions entered into by an authorized institution consist of not less than one OTC derivative transaction or credit derivative contract, means the greater of-			
	(a)	zero; and	
	(b)	the difference between-	
		(i) the sum of default risk exposures across all netting sets with the counterparty; and	
		(ii) the CVA loss in respect of that counterparty;	
securities financing transaction ( ) means-			
	(a)	a repo-style transaction;	
	(b)	a margin lending transaction;	
	(c)	a long settlement transaction that falls within paragraph (a) or (b); or	
	(d)	a long settlement transaction of which the counterparty credit risk profile is similar to that of a transaction that falls within paragraph (a) or (b);	
SFT (		) means a securities financing transaction;	
<i>specific wrong-way risk</i> ( ) has the meaning given by section 226A(1);			
<i>standardized CVA method</i> ( ) has the meaning given by section 226A(1);			
thresh	<b>old</b> (	) has the meaning given by section 226A(1);	
<i>valid cross-product netting agreement</i> ( ), in relation to an authorized institution's transactions that are covered by an IMM(CCR) approval, has the meaning given by section 226A(2);".			
Section	n 2(1),	definition of <i>default risk exposure</i> , after paragraph (f)-	

Add

(11)

- "(g) if the netting set consists of one or more than one derivative contract (other than a credit derivative contract) that is traded on an exchange, the amount of that exposure is the amount mentioned in paragraph (a), (b) or (e), as the case may be, as if the transaction were an OTC derivative transaction;".
- (12) Section 2(1)-

#### Repeal the definition of over-the-counter derivative transaction

#### Substitute

- "over-the-counter derivative transaction ( ) means a derivative contract (other than a credit derivative contract) that is not traded on an exchange;".
- (13) Section 2(1), definition of *risk-weighted amount*, paragraph (a), after "or 6,"-

#### Add

"or Division 4 of Part 6A,".

(14) Section 2(1), definition of *risk-weighted amount for credit risk*, paragraph
 (a), after "or 6,"-

Add

"or Division 4 of Part 6A,".

(15) Section 2(1)-

#### Add in alphabetical order

"*CCP-related transaction* ( ), in relation to a CCP, means a derivative contract or SFT between a clearing member of the CCP and the clearing member's client that is directly related to a derivative contract or SFT between the clearing member and the CCP;

#### *clearing member* ( ) means any of the following-

- (a) a member of, or a direct participant in, a CCP that is entitled to enter into a transaction with the CCP;
- (b) a CCP to which the CCP mentioned in paragraph (a) has a link;

- *client* ( ), in relation to a clearing member of a CCP, means a party to a transaction with the CCP through the clearing member-
  - (a) acting as a financial intermediary; or
  - (b) guaranteeing the performance of the party to the CCP;

# *default fund contribution* ( ), in relation to a clearing member of a CCP, means-

- (a) the funded or unfunded contribution made by the clearing member to the CCP's mutualized loss-sharing arrangements; or
- (b) the clearing member's underwriting of the CCP's mutualized loss-sharing arrangements;".

#### 4. Section 4 amended (interpretation of Part 2)

Section 4, definition of *IRB coverage ratio*, after "institution's risk-weighted amount for credit risk"-

Add

"(but excluding any risk-weighted amount for credit risk of its exposures to a CCP that is subject to Division 4 of Part 6A)".

### 5. Section 4A amended (valuation of exposures measured at fair value)

Section 4A(1), after "Part 4, 5, 6,"-

Add

"6A,".

# 6. Section 5 amended (authorized institution shall only use STC approach, BSC approach or IRB approach to calculate its credit risk for non-securitization exposures)

Section 5(1)-

#### Repeal

"An authorized institution"

#### Substitute

"Subject to section 16A, an authorized institution".

#### 7. Sections 10A to 10D added

After section 10-

#### Add

#### "10A. Authorized institution must only use current exposure method, etc. to calculate counterparty credit risk

- (1) Subject to subsections (2), (3) and (4), an authorized institution must-
  - (a) use the current exposure method to calculate the default risk exposures in respect of derivative contracts;
  - (b) use the method[s] set out in sections 76A(3) to (6),
    96, 97, 123A(3) to (6), 202(2) or 209(3), as the case requires, to calculate the default risk exposures in respect of SFTs; and
  - (c) use the standardized CVA method-
    - (i) to calculate the CVA capital charge in respect of OTC derivative transactions and credit derivative contracts; and
    - (ii) if the institution is required to do so pursuant to a notice under subsection (5) given to it by the Monetary Authority, to calculate the CVA capital charge in respect of SFTs.
- (2) An authorized institution that has obtained the Monetary Authority's approval to use the IMM approach to calculate its market risk may apply to the Monetary Authority for approval to use the IMM(CCR) approach to calculate the default risk exposures in respect of transactions falling within any one, or any combination of 2 or more, of the following categories-
  - (a) derivative contracts (other than long settlement transactions);
  - (b) SFTs (other than long settlement transactions);
  - (c) long settlement transactions.

- (3) Where an authorized institution has-
  - (a) an IMM(CCR) approval which covers derivative contracts; and
  - (b) an approval granted under section 18 to use the IMM approach to calculate specific risk for interest rate exposures,

the institution must, unless otherwise required by the Monetary Authority under section 10C(1), or by virtue of section 10C(2), use the advanced CVA method-

- (c) to calculate the CVA capital charge in respect of OTC derivative transactions and credit derivative contracts; and
- (d) if the IMM(CCR) approval also covers SFTs and the institution is required to do so pursuant to a notice under subsection (5) given to it by the Monetary Authority, to calculate the CVA capital charge in respect of SFTs.
- (4) Subsection (1) does not prevent an authorized institution from using any combination of the current exposure method and the IMM(CCR) approach, or any combination of methods mentioned in subsection (1)(b) and the IMM(CCR) approach, to calculate default risk exposures if that combination is expressly permitted by, and in accordance with, another section of these Rules.
- (5) Where the Monetary Authority determines that an authorized institution's CVA risk arising from SFTs is material, the Monetary Authority may, in a notice in writing given to the institution, require the institution to calculate and hold CVA capital charge for its SFTs.
- (6) An authorized institution must comply with a notice given to it under subsection (5).
- (7) Subsections (1) to (6) apply to an authorized institution regardless of whether the transactions concerned are booked in the institution's banking book or trading book.

#### 10B. Authorized institution may apply for approval to use IMM(CCR) approach to calculate default risk exposures

- (1) An authorized institution may apply to the Monetary Authority for approval to use the IMM(CCR) approach to calculate the default risk exposures.
- (2) Subject to subsection (3), the Monetary Authority must determine an application under subsection (1) from an authorized institution by-
  - (a) granting approval to the institution to use the IMM(CCR) approach to calculate the default risk exposures in respect of-
    - (i) the transactions specified in the application; or
    - (ii) such of those transactions as the Monetary Authority specifies in the approval; or
  - (b) refusing to grant the approval, whether in whole or in part.
- (3) Without prejudice to the generality of subsection (2)(b), the Monetary Authority must refuse to grant an approval to an authorized institution to use the IMM(CCR) approach if any one or more of the requirements specified in Schedule 3A applicable to or in relation to the institution are not satisfied with respect to the institution.
- (4) Subject to subsections (5) and (6), an authorized institution must use the IMM(CCR) approach to calculate the default risk exposures of all transactions that are covered by the IMM(CCR) approval.
- (5) Subject to subsection (6), the Monetary Authority may specify, in his approval granted under subsection (2)(a) to an authorized institution, a transitional period in which the institution is allowed to use the current exposure method or the methods mentioned in section 10A(1)(b), as the case requires, to calculate the default risk exposures for a portion of its business if, and only if, the institution has submitted to the Monetary Authority a plan for fully implementing the IMM(CCR) approach within a reasonable period for all transactions covered by the IMM(CCR) approval.

- (6) An authorized institution may choose not to apply the IMM(CCR) approach to transactions covered by the IMM(CCR) approval if it can demonstrate to the satisfaction of the Monetary Authority that the default risk exposures to those transactions are immaterial.
- (7) An authorized institution that has an IMM(CCR) approval must, for transactions that are not covered by the IMM(CCR) approval, calculate the default risk exposures in respect of those transactions in accordance with section 10A(1).
- (8) Where an authorized institution uses the IMM(CCR) approach to calculate default risk exposures, the institution shall not, without the prior consent of the Monetary Authority-
  - (a) make any significant change to any internal model which is the subject of the institution's IMM(CCR) approval; or
  - (b) revert to the current exposure method or the methods mentioned in section 10A(1)(b).

# 10C. Provisions supplementary to prescribed methods for calculation of CVA capital charge

- (1) An authorized institution that falls within section 10A(3) and is permitted under section 10B(5) or (6) to apply the current exposure method to a portion of its business mentioned in section 10B(5) or transactions mentioned in section 10B(6), as the case requires, must calculate the CVA capital charge in respect of that portion or those transactions, as the case may be, using the advanced CVA method unless the Monetary Authority decides that the standardized CVA method must apply to the portion or transactions, as the case may be.
- (2) Where an authorized institution's approved VaR model referred to in section 226M(2) may not reflect the risk of credit spread changes appropriately in respect of a counterparty because the VaR model does not appropriately reflect the specific risk of debt securities issued by the counterparty, the institution must use the standardized CVA method, instead of the advanced CVA method, to calculate the CVA capital charge for that counterparty.

#### 10D. Measures which may be taken by Monetary Authority if authorized institution using IMM(CCR) approach no longer satisfies specified requirements

- (1) Where the Monetary Authority determines that an authorized institution which is using the IMM(CCR) approach no longer satisfies one or more of the requirements specified in Schedule 3A applicable to or in relation to the institution, or that the institution has contravened a condition attached under section 33A(1) or (2) to its IMM(CCR) approval or fails to fully implement the IMM(CCR) approach within the period specified, under section 10B(5), in the IMM(CCR) approval, the Monetary Authority may take one or more of the measures set out in subsections (2) to (6).
- (2) The Monetary Authority may, by notice in writing given to the authorized institution, require the institution to-
  - (a) use the current exposure method or the methods mentioned in section 10A(1)(b), as the case requires, instead of the IMM(CCR) approach to calculate the default risk exposures;
  - (b) if the institution is using the advanced CVA method to calculate the CVA capital charge for transactions that are covered by the IMM(CCR) approval, use the standardized CVA method instead of the advanced CVA method to calculate the CVA capital charge,

in respect of the transactions as specified in the notice, beginning on such date, or the occurrence of such event, as specified in the notice.

- (3) The Monetary Authority may, by notice in writing given to the authorized institution, require the institution to-
  - (a) submit to the Monetary Authority a plan, within such period (being a period which is reasonable in all the circumstances of the case) as specified in the notice, which satisfies the Monetary Authority that, if it were implemented by the institution, the institution would cease to fall within subsection (1) within a period which is reasonable in all the circumstances of the case; and
  - (b) implement the plan.

- (4) The Monetary Authority may, by notice in writing given to an authorized institution, advise the institution that the Monetary Authority is considering exercising the Monetary Authority's power under section 97F of the Ordinance to vary any capital requirement rule applicable to the institution;
- (5) The Monetary Authority may, by notice in writing given to an authorized institution, require the institution to calculate its default risk exposures by the use of such higher  $\alpha$ (within the meaning of section 226D(1)) as specified in the notice.
- (6) The Monetary Authority may, by notice in writing given to an authorized institution, require the institution to reduce its counterparty credit risk exposures in such manner, or to adopt such measures, specified in the notice which, in the opinion of the Monetary Authority, will cause the institution to cease to fall within subsection (1) within a period which is reasonable in all the circumstances of the case, or will otherwise mitigate the effect of the institution falling within that subsection.
- (7) An authorized institution must comply with the requirements of a notice given to it under subsection (2), (3), (5) or (6).

#### (8) To avoid doubt-

- (a) the requirements specified in Schedule 3A are also applicable to and in relation to an authorized institution using the IMM(CCR) approach in respect of an internal model to which a significant change mentioned in section 10B(8)(a) relates (whether or not the institution has, in respect of that change, been given the prior consent referred to in that section) and the other provisions of this section apply accordingly; and
- (b) subsection (4) does not operate to prejudice the generality of the circumstances in respect of which the Monetary Authority may exercise the power under section 97F of the Ordinance in the case of an authorized institution to which that subsection applies.".

#### 8. Section 15 amended (authorized institution shall only use STC(S) approach or IRB(S) approach to calculate its credit risk for securitization exposures)

Section 15(1)-

#### Repeal

"section 16"

#### Substitute

"sections 16 and 16A".

#### 9. Part 2, Division 4A added

#### "Division 4A - Calculation of Credit Risk for Exposures to CCPs, etc.

# 16A. Authorized institution must use Division 4 of Part 6A to calculate credit risk for exposures to CCPs, etc.

An authorized institution must calculate-

- (a) its credit risk for exposures to CCPs in respect of derivative contracts and SFTs cleared by the CCPs and default fund contributions; and
- (b) its credit risk for exposures to clearing members and clients in respect of CCP-related transactions and guarantees of clients' performances,

in accordance with Division 4 of Part 6A.".

# 10. Part 2, Division 7A, heading amended (attachment of conditions to approvals granted under section 6(2)(a), 8(2)(a), 18(2)(a), 20(2)(a) or 25(2)(a))

Part 2, Division 7A, heading, after "8(2)(a),"-

Add

**"10B(2)(a),"**.

# 11. Section 33A amended (attachment of conditions to approvals granted under section 6(2)(a), 8(2)(a), 18(2)(a), 20(2)(a) or 25(2)(a))

(1) Section 33A, heading, after "**8**(**2**)(**a**),"-

Add

**"10B(2)(a),"**.

(2) Section 33A(1), after "8(2)(a),"-

Add

"10B(2)(a),".

(3) Section 33A(2), after "8(2)(a),"-

Add

"10B(2)(a),".

### 12. Section 34 amended (reviewable decisions)

Section 34(1), after "8(2),"-

Add

"10B(2),".
# **13.** Section 51 amended (interpretation of Part 4)

(1) Section 51(1), definition of *principal amount*, paragraph (b), after subparagraph (iv)-

# Add

- "(v) in the case of an exposure to a person arising from the person holding collateral posted by the institution in a manner that is not bankruptcy remote from the person, the fair value of the collateral;".
- (2) Section 51(1)-

# Add in alphabetical order

- "SFT risk-weighted amount ( ), in relation to [a portfolio of] SFTs, means the sum of the default risk risk-weighted amounts for all counterparties to the SFTs where the default risk riskweighted amount for each of the counterparties is calculated as the product of-
  - (a) the sum of default risk exposures across all the SFTs with the counterparty calculated under section 76A(3) to (6), 96 or 97, as the case requires; and
  - (b) the risk-weight applicable to the exposures determined under section 74(1);".

# 14. Section 52 amended (calculation of risk-weighted amount of exposures)

(1) Section 52(3)-

#### Repeal paragraph (a)

#### Substitute

- "(a) subject to paragraph (b), in the case of an authorized institution's off-balance sheet exposures that are counterparty credit risk exposures to OTC derivative transactions, credit derivative contracts or SFTs-
  - the institution must, if it has an IMM(CCR) approval and an approval to use the IMM approach to calculate specific risk for interest rate exposures, calculate the risk-weighted amount of those off-balance sheet exposures as the sum of-
    - (A) the IMM(CCR) risk-weighted amount of the transactions concerned that are covered by the IMM(CCR) approval;
    - (B) the CEM risk-weighted amount or SFT risk-weighted amount, as the case may be, of the transactions concerned that are not [covered] by the IMM(CCR) approval or that fall within section 10B(5) or (6); and
    - (C) the CVA risk-weighted amount determined using the advanced CVA method, the standardized CVA method, or a combination of those 2 methods that is permitted under these Rules, as the case requires;
  - (ii) the institution must, if it has an IMM(CCR) approval but does not have an approval to use the IMM approach to calculate specific risk for interest rate exposures, calculate the risk-weighted amount of those off-balance sheet exposures as the sum of-
    - (A) the IMM(CCR) risk-weighted amount of the transactions concerned that are covered by the IMM(CCR) approval;
    - (B) the CEM risk-weighted amount or SFT risk-weighted amount, as the case may be, of the transactions concerned that are not covered by the IMM(CCR) approval or that fall within section 10B(5) or (6); and

- (C) the CVA risk-weighted amount determined using the standardized CVA method;
- (iii) the institution must, if it does not have an IMM(CCR) approval for any of its transactions, calculate the riskweighted amount of those off-balance sheet exposures as the sum of-
  - (A) the CEM risk-weighted amount;
  - (B) the SFT risk-weighted amount; and
  - (C) the CVA risk-weighted amount determined using the standardized CVA method;
- (aa) an authorized institution is not required to hold regulatory capital for CVA risk in respect of transactions with a CCP;
- (ab) subject to paragraph (b), in the case of an authorized institution's off-balance sheet exposures that do not fall within paragraph (a), the institution must calculate the risk-weighted amount of each of those exposures by-
  - (i) converting the principal amount of the exposure, net of specific provisions, into its credit equivalent amount in the manner set out in section 71 or 73, as the case requires; and
  - (ii) multiplying the credit equivalent amount by the exposure's relevant risk-weight determined under section 74;".
- (2) Section 52(3)-

#### Repeal paragraph (aa).

(3) Section 52(3)(b)-

# Repeal

"paragraph (c)"

# Substitute

"paragraphs (c) and (d)".

(4) Section 52(3)(c)-

#### Repeal

"that rating."

### Substitute

"that rating;".

(5) After section 52(3)(c)-

### Add

- "(d) where an off-balance sheet exposure of an authorized institution is a counterparty credit risk exposure to OTC derivative transactions, credit derivative contracts or SFTs, the institution must not, under paragraph (b), take into account the effect of any recognized credit risk mitigation applicable to the exposure if that effect has already been taken into account in the calculation of the default risk exposures in respect of those transactions or contracts, as the case may be.".
- (6) After section 52(3)-

# Add

"(3A) For the purposes of subsection (1), where an authorized institution has bought credit protection for an exposure and the credit protection is in the form of a single-name credit default swap which falls within section 226I(1), the institution must not take into account the credit mitigation effect of the swap when calculating the risk-weighted amount of the exposure.".

# **15.** Section 53 amended (on-balance sheet exposures and off-balance sheet exposures to be covered)

(1) Section 53(a)-

#### **Repeal subparagraph (ii)**

# Substitute

- "(ii) which are subject to the requirements of Part 7; or
- (iii) which are subject to the requirements of Division 4 of Part 6A;".
- (2) Section 53-

### Repeal paragraph (b)

#### Substitute

- "(b) all the institution's exposures to counterparties-
  - (i) under OTC derivative transactions, credit derivative contracts or SFTs booked in its trading book; or
  - (ii) in respect of assets posted by the institution as collateral that are held by the counterparties in a manner that is not bankruptcy remote from the counterparties,

except such exposures that are subject to deduction from any of the institution's CET1 capital, additional Tier 1 capital and Tier 2 capital under [Division ... of Part ...]<sup>3</sup>; and".

(3) Section 53(b), after "trading book"-

#### Add

"except such exposures which are subject to the requirements of Division 4 of Part 6A".

 $<sup>^{3}</sup>$  The contents of the Division will be included in the 2<sup>nd</sup> batch of amendment rules for implementation of the revised definition of capital.

# 16. Section 59 amended (bank exposures)

(1) Section 59(5)-

# Repeal

"Where"

# Substitute

"Subject to subsection (5A), where".

(2) After section 59(5)-

# Add

- "(5A) Subsection (5) does not apply to an exposure of the authorized institution to a bank in respect of a self-liquidating letter of credit that-
  - (a) is issued by the bank;
  - (b) has a maturity of less than one year; and
  - (c) has been confirmed by the institution.".

# **17.** Section 64 amended (regulatory retail exposures)

Section 64(2)(a)-

# **Repeal subparagraph (ii)**

#### Substitute

- "(ii) in the case of an off-balance sheet exposure which is an OTC derivative transaction, credit derivative contract or SFT, the amount of the exposure is-
  - (A) the outstanding default risk exposure in respect of the OTC derivative transaction or credit derivative contract; or
  - (B) the default risk exposure in respect of the SFT,

as the case requires; and".

# **18.** Section 65 amended (residential mortgage loans)

Section 65(6)(b)(iii)-

# Repeal

"section 79(a)"

# Substitute

"section 79(1)(a)".

### **19.** Section 69 amended (application of ECAI ratings)

Section 69-

#### **Repeal subsections (3) and (4)**

#### Substitute

- "(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 long-term 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 must, 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-

- (d) use the long-term ECAI issue specific rating mentioned in paragraph (b) 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 equal to, or higher than, the riskweight 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; and
  - (ii) the exposure ranks equally with, or is subordinated in respect of payment or repayment to, the debt obligation mentioned in paragraph (b);
- (e) use the long-term ECAI issue specific rating mentioned in paragraph (b) if-
  - (i) 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; and

- (ii) the exposure ranks equally with, or senior in respect of payment or repayment to, the debt obligation mentioned 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 must, 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-

- (d) use the ECAI issuer rating mentioned in paragraph (b) 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 equal to, or higher 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;
  - (ii) that ECAI issuer rating is only applicable to unsecured exposures to the person as an issuer which are not subordinated to other exposures to that person; and
  - (iii) the exposure to the person ranks equally with, or is subordinated to, the unsecured exposures mentioned in subparagraph (ii);

- (e) use the ECAI issuer rating mentioned in paragraph (b) 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;
  - (ii) that ECAI issuer rating is only applicable to unsecured exposures to the person as an issuer which are not subordinated to other exposures to that person; and
  - (iii) the exposure to the person is not subordinated to other exposures to the person as an issuer.".

### 20. Section 70A added

Part 4, Division 4, before section 71-

### Add

# "70A. Application of sections 71(2) and (3), 72 and 73(b) and (c)

Sections 71(2) and (3), 72 and 73(b) and (c) do not apply to OTC derivative transactions or credit derivative contracts for which an authorized institution has an IMM(CCR) approval except for such transactions or contracts for which the institution is permitted, under section 10B(5) or (6), to use the current exposure method.".

# 21. Section 74 amended (determination of risk-weights applicable to off-balance sheet exposures)

(1) Section 74(1)-

#### Repeal

"subsection (2)"

# Substitute

"subsections (2) and (6A)".

(2) After section 74(6)-

### Add

"(6A) Where an off-balance sheet exposure mentioned in subsection (1) of an authorized institution is a single-name credit default swap which falls within section 226I(1) and the default risk exposure in respect of the swap is determined in accordance with section 226I(3), the institution must determine the risk-weight attributable to the exposure by reference to the attributed risk-weight of the counterparty in respect of the swap without taking into account any recognized credit risk mitigation afforded to the swap.".

# 22. Section 75 amended (calculation of risk-weighted amount of exposures in respect of repo-style transactions booked in banking book)

(1) Section 75, heading-

Repeal

"repo-style transactions"

#### Substitute

"assets underlying SFTs".

(2) Section 75(1)-

# Repeal subsection (1)

#### Substitute

- "(1) An authorized institution must calculate the risk-weighted amount of an exposure in respect of the asset underlying an SFT booked in its banking book in accordance with the following provisions.".
- (3) Section 75(2)-

#### Repeal

"Where the repo-style transaction"

#### Substitute

"Where the SFT is a repo-style transaction that".

(4) Section 75-

#### **Repeal subsection (3).**

(5) Section 75(4)-

# Repeal

"Where the repo-style transaction"

# Substitute

"Where the SFT is a repo-style transaction that".

(6) Section 75(4)-

# Repeal paragraph (a).

(7) After section 75(4)-

Add

"(5) Where the asset underlying an SFT is a securitization issue, an authorized institution must determine the risk-weight attributable to the asset in accordance with Part 7.".

# 23. Section 76 amended (calculation of risk-weighted amount of exposures in respect of repo-style transactions booked in trading book)

(1) Section 76, heading-

Repeal

"repo-style transactions"

Substitute

"assets underlying SFTs".

(2) Section 76-

Repeal

"in respect of a repo-style transaction"

# Substitute

"in respect of the asset underlying an SFT".

(3) Section 76-

Repeal paragraph (b).

#### 24. Section 76A added

After section 76-

#### Add

# "76A. Calculation of risk-weighted amount of default risk exposures in respect of SFTs

- (1) Subject to subsection (2), an authorized institution that has an IMM(CCR) approval for SFTs must calculate the riskweighted amount of its default risk exposures in respect of SFTs (whether booked in its banking book or trading book) using the IMM(CCR) approach.
- (2) Where-
  - (a) an authorized institution does not have an IMM(CCR) approval for SFTs;
  - (b) an authorized institution has an IMM(CCR) approval for SFTs that does not include SFTs that are long settlement transactions; or
  - (c) an authorized institution is permitted, under section 10B(5) or (6), not to use the IMM(CCR) approach for certain SFTs,

the institution must calculate the risk-weighted amount of its default risk exposures in respect of SFTs (whether booked in its banking book or trading book) that are not, by virtue of the circumstance mentioned in paragraph (a), (b) or (c), subject to the IMM(CCR) approach, in accordance with subsections (3) to (6).

(3) Where the SFT is a repo-style transaction that falls within paragraph (a) or (b) of the definition of *repo-style transaction* in section 2(1), the authorized institution must treat the securities sold or lent under the transaction as an on-balance sheet exposure to the counterparty secured on the money or 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 default risk 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 applicable to the transaction.

- (4) Where the SFT is a repo-style transaction that falls within paragraph (c) of the definition of *repo-style transaction* in section 2(1), the authorized institution must 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 default risk 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 applicable to the transaction.
- (5) Where the SFT is a margin lending transaction, the authorized institution must calculate the risk-weighted amount of its default risk 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 applicable to the transaction.
- (6) Where the SFT is a repo-style transaction that falls within paragraph (d) of the definition of *repo-style transaction* in section 2(1)-
  - (a) if and to the extent that the authorized institution has provided collateral in the form of money under the transaction, the institution must 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 default risk 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 applicable to the transaction;
  - (b) if and to the extent that the authorized institution has provided collateral in the form of securities under the transaction, the institution must treat those securities as an on-balance sheet exposure to the counterparty secured on the securities borrowed by the institution and, accordingly, calculate the riskweighted amount of its default risk 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 applicable to the transaction.".

### 25. Section 77 amended (recognized collateral)

(1) Section 77, after paragraph (e)-

#### Add

- "(ea) if the collateral is provided under a margin agreement for OTC derivative transactions, credit derivative contracts or SFTs, the institution has-
  - (i) devoted sufficient resources to enable the orderly operation of the agreement; and
  - (ii) has collateral management policies in place to control, monitor and report-
    - (A) risks (including liquidity risk and concentration risk) associated with the agreement;
    - (B) reuse of collateral; and
    - (C) the rights ceded by the institution in respect of collateral posted;".
- (2) Section 77(f)-

#### Repeal

"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".

(3) Section 77(i)(i)-

### Repeal

"section 79(a)"

# Substitute

"section 79(1)(a)".

(4) Section 77(i)(ii)-

# Repeal

"section 80(a)"

# Substitute

"section 80(1)(a)".

# 26. Section 79 amended (collateral which may be recognized for purposes of section 77(i)(i))

(1) Section 79-

Renumber the section as section 79(1).

(2) Section 79(1)-

# Repeal

"For the purposes of"

# Substitute

"Subject to subsection (2), for the purposes of".

(3) After section 79(1)-

# Add

"(2) Any reference to debt securities in subsection (1) does not include debt securities which, if being treated as an on-balance sheet exposure of an authorized institution, would fall within the definition of *re-securitization exposure* in section 227(1).".

# 27. Section 80 amended (collateral which may be recognized for purposes of section 77(i)(ii))

(1) Section 80-

Renumber the section as section 80(1).

(2) Section 80(1)-

# Repeal

"For the purposes of"

# Substitute

"Subject to subsection (2), for the purposes of".

(3) Section 80(1)(a)-

# Repeal

"section 79(a)"

# Substitute

"section 79(1)(a)"

(4) After section 80(1)-

# Add

"(2) Collateral mentioned in subsection (1) does not include debt securities which, if being treated as an on-balance sheet exposure of an authorized institution, would fall within the definition of *resecuritization exposure* in section 227(1).".

# 28. Section 81 amended (calculation of risk-weighted amount of exposures taking into account credit risk mitigation effect of recognized collateral under simple approach)

Section 81(2)(a)-

# Repeal

"section 79(a)"

# Substitute

"section 79(1)(a)".

# 29. Section 82 amended (determination of risk-weight to be allocated to recognized collateral under simple approach)

Section 82(5), definition of *cash*, paragraph (b)-

# Repeal

"section 79(a)"

# Substitute

"section 79(1)(a)".

# **30.** Section 85 amended (calculation of risk-weighted amount of OTC derivative transactions and credit derivative contracts)

Section 85(1)-

# Repeal paragraphs (a) to (d)

# Substitute

- "(a) dividing the outstanding default risk exposure of the transaction, 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 2 products derived from the application of paragraph (b).".

- 31. Section 88 amended (calculation of net credit exposure of off-balance sheet exposures other than credit derivative contracts booked in trading book or OTC derivative transactions)
  - (1) Section 88, heading-

Repeal

"booked in trading book".

(2) Section 88-

# Repeal

"booked in the trading book of the institution".

(3) Section 88, Formula 3, heading-

# Repeal

"BOOKED IN THE TRADING BOOK".

# **32.** Section 89 amended (calculation of net credit exposure of credit derivative contracts booked in trading book and OTC derivative transactions)

(1) Section 89, heading-

#### Repeal

"booked in trading book".

(2) Section 89-

### Repeal

"booked in the trading book of the institution".

(3) Section 89, Formula 4, heading-

# Repeal

"BOOKED IN TRADING BOOK".

(4) Section 89, Formula 4, component E-

# Repeal

"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;"

# Substitute

"outstanding default risk exposure of the contract or transaction, as the case may be, net of specific provisions, if any;".

# **33.** Section 91 amended (minimum holding periods)

(1) Section 91-

# Renumber the section as section 91(1).

(2) After section 91(1)-

# Add

"(2) Where the exposure mentioned in subsection (1) arises from a transaction or netting set that falls within any of the descriptions in section 226L(2), (3) or (5), the assumed minimum holding period of the transaction or netting set must be equal to the longer margin period of risk that would apply to the transaction or netting set under section 226L(2), (3) or (5), as the case requires."

# **34.** Section 92 amended (adjustment of standard supervisory haircuts in certain circumstances)

Section 92, Formula 6, symbol T<sub>M</sub>-

# Repeal

"as set out in Table 12"

# Substitute

"determined in accordance with section 91".

### 35. Section 93A added

Part 4, Division 8, before section 94-

Add

### "93A. Application of sections 95, 96 and 97

- (1) Where an authorized institution uses the IMM(CCR) approach to calculate the default risk exposure of a netting set that contains OTC derivative transactions or credit derivative contracts-
  - (a) subject to paragraph (b), the institution must take into account the effect of any recognized netting in the manner [set out] OR [mentioned] in Part 6A instead of in the manner [set out] OR [mentioned] in section 95;
  - (b) paragraph (a) does not apply in the case of transactions or contracts for which the institution is permitted, under section 10B(5) or (6), to use the current exposure method.
- (2) Where an authorized institution uses the IMM(CCR) approach to calculate the default risk exposure of a netting set that contains SFTs-
  - (a) subject to paragraph (b), the institution must take into account the effect of any recognized netting in the manner set out in Part 6A instead of in the manner set out in section 96 or 97;
  - (b) paragraph (a) does not apply in the case of transactions for which the institution is permitted, under section 10B(5) or (6), not to use the IMM(CCR) approach.".

# **36.** Section 95 amended (netting of OTC derivative transactions and netting of credit derivative contracts booked in trading book)

(1) Section 95, heading-

Repeal

"booked in trading book".

(2) Section 95(6), definition of *derivative transaction*, paragraph (b)-

Repeal

"booked in the trading book".

# **37.** Section 96 amended (netting of repo-style transactions)

(1) Section 96(2)(b)(i)-

# Repeal

"section 80(a)"

# Substitute

"section 80(1)(a)".

(2) Section 96(5)(b)(ii)-

# Repeal

"section 80(a)"

# Substitute

"section 80(1)(a)".

#### 38. Section 97 amended (use of value-at-risk model instead of Formula 9)

(1) Section 97(4)-

#### **Repeal paragraph (b)**

#### Substitute

- "(b) if the nettable repo-style transactions are subject to daily remargining, the model will assume a minimum holding period of 5 business days and that minimum holding period-
  - (i) will be subject to increase to the extent that the liquidity of the securities provided by way of collateral under those transactions is such that a longer minimum holding period must be assumed; and
  - (ii) must be increased in the manner set out in section 226L(2),
    (3) or (5), as the case requires, if those transactions constitute a netting set which falls within the description mentioned in that section;
- (ba) if the nettable repo-style transactions are not subject to daily remargining, the model must assume a minimum holding period which is at least equal to the minimum holding period calculated by the use of Formula 9A.".
- (2) After section 97(4)-

# Add

#### "FORMULA 9A

# CALCULATION OF MINUMUM HOLDING PERIOD WHERE SECTION 97(4)(ba) IS APPLICABLE

#### Minimum holding period = F + N - 1

where-

- (a) F = 5 business days or the supervisory floor determined in accordance with section 226L(2) or (3), as the case may be; and
- (b) N = actual number of days between each remargining of the transactions.".

# **39.** Section 98 amended (recognized guarantees)

(1) Section 98(a)(v), after "firm;"-

# Add

"or".

(2) Section 98(a)-

# Repeal subparagraphs (vi) and (vii)

# Substitute

"(vi) a corporate that has an ECAI issuer rating,".

# 40. Section 99 amended (recognized credit derivative contracts)

(1) Section 99(1)(b)(v), after "firm;"-

# Add

"or".

(2) Section 99(1)(b)-

# Repeal subparagraphs (vi) and (vii)

# Substitute

"(vi) a corporate that has an ECAI issuer rating,".

# 41. Section 103 amended (maturity mismatches)

Section 103(4)-

# Repeal

"section 79(a)"

# Substitute

"section 79(1)(a)".
#### 42. Section 105 amended (interpretation of Part 5)

(1) Section 105, definition of *principal amount*, paragraph (b), after subparagraph (iv)-

#### Add

- "(v) in the case of an exposure to a person arising from the person holding collateral posted by the institution in a manner that is not bankruptcy remote from the person, the fair value of the collateral;".
- (2) Section 105-

#### Add in alphabetical order

- "SFT risk-weighted amount ( ), in relation to SFTs, means the sum of the default risk risk-weighted amounts for all the counterparties to the SFTs where the default risk risk-weighted amount for each of the counterparties is calculated as the product of-
  - (a) the sum of default risk exposures across all the SFTs with the counterparty calculated under section 123A(3) to (6); and
  - (b) the applicable risk-weight determined under section 121(1);".

### 43. Section 106 amended (calculation of risk-weighted amount of exposures)

(1) Section 106(3)-

#### Repeal paragraph (a)

#### Substitute

- "(a) subject to paragraph (b), in the case of an authorized institution's off-balance sheet exposures that are counterparty credit risk exposures to OTC derivative transactions, credit derivative contracts or SFTs-
  - the institution must, if it has an IMM(CCR) approval and an approval to use the IMM approach to calculate specific risk for interest rate exposures, calculate the risk-weighted amount of those off-balance sheet exposures as the sum of-
    - (A) the IMM(CCR) risk-weighted amount of the transactions concerned that are covered by the IMM(CCR) approval;
    - (B) the CEM risk-weighted amount or SFT risk-weighted amount, as the case may be, of the transactions concerned that are not covered by the IMM(CCR) approval or that fall within section 10B(5) or (6); and
    - (C) the CVA risk-weighted amount determined using the advanced CVA method, the standardized CVA method, or a combination of those 2 methods that is permitted under these Rules, as the case requires;
  - (ii) the institution must, if it has an IMM(CCR) approval but does not have an approval to use the IMM approach to calculate specific risk for interest rate exposures, calculate the risk-weighted amount of those off-balance sheet exposures as the sum of-
    - (A) the IMM(CCR) risk-weighted amount of the transactions concerned that are covered by the IMM(CCR) approval;
    - (B) the CEM risk-weighted amount or SFT risk-weighted amount, as the case may be, of the transactions concerned that are not covered by the IMM(CCR) approval or that fall within section 10B(5) or (6); and

- (C) the CVA risk-weighted amount determined using the standardized CVA method;
- (iii) the institution must, if it does not have an IMM(CCR) approval for any of its transactions, calculate the riskweighted amount of those off-balance sheet exposures as the sum of-
  - (A) the CEM risk-weighted amount;
  - (B) the SFT risk-weighted amount; and
  - (C) the CVA risk-weighted amount determined using the standardized CVA method;
- (aa) an authorized institution is not required to hold regulatory capital for CVA risk in respect of transactions with a CCP;
- (ab) subject to paragraph (b), in the case of an authorized institution's off-balance sheet exposures that do not fall within paragraph (a), the institution must calculate the risk-weighted amount of each of those exposures by-
  - (i) converting the principal amount of the 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
  - (ii) multiplying the credit equivalent amount by the exposure's relevant risk-weight determined under section 121;".
- (2) Section 106(3)-

#### Repeal paragraph (aa).

(3) Section 106(3)-

#### Repeal paragraph (b)

#### Substitute

"(b) subject to paragraph (c), 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;

- (c) where an off-balance sheet exposure of an authorized institution is a counterparty credit risk exposure to OTC derivative transactions, credit derivative contracts or SFTs, the institution must not, under paragraph (b), take into account the effect of any recognized credit risk mitigation applicable to the exposure if that effect has already been taken into account in the calculation of the default risk exposures in respect of those transactions or contracts, as the case may be.".
- (4) Section 106, after subsection (3)-

# Add

"(4) For the purposes of subsection (1), where an authorized institution has bought credit protection for an exposure and the credit protection is in the form of a single-name credit default swap which falls within section 226I(1), the institution must not take into account the credit mitigation effect of the swap when calculating the risk-weighted amount of the exposure.".

# 44. Section 107 amended (on-balance sheet exposures and off-balance sheet exposures to be covered)

(1) Section 107(a)-

#### **Repeal subparagraph (ii)**

#### Substitute

- "(ii) which are subject to the requirements of Part 7; or
- (iii) which are subject to the requirements of Division 4 of Part 6A;".
- (2) Section 107-

# Repeal paragraph (b)

#### Substitute

- "(b) all of the institution's exposures to counterparties-
  - (i) under OTC derivative transactions, credit derivative contracts or SFTs booked in its trading book; or
  - (ii) in respect of assets posted by the institution as collateral that are held by the counterparties in a manner that is not bankruptcy remote from the counterparties,

except such exposures that are subject to deduction from any of the institution's CET1 capital, additional Tier 1 capital and Tier 2 capital under [Division .. of Part ..]<sup>4</sup>; and".

(3) Section 107(b), after "trading book"-

#### Add

"except such exposures which are subject to the requirements of Division 4 of Part 6A".

<sup>&</sup>lt;sup>4</sup> The contents of the Division will be included in the  $2^{nd}$  batch of amendment rules for implementation of the revised definition of capital.

#### 45. Section 117A added

Part 5, Division 4, before section 118-

#### Add

# "117A. Application of sections 118(2) and (3), 119 and 120(b) and (c)

Sections 118(2) and (3), 119 and 120(b) and (c) do not apply to OTC derivative transactions or credit derivative contracts for which an authorized institution has an IMM(CCR) approval except for transactions or contracts for which the institution is permitted, under section 10B(5) or (6), to use the current exposure method.".

# 46. Section 121 amended (determination of risk-weights applicable to off-balance sheet exposures)

(1) Section 121(1)-

#### Repeal

"subsection (2)"

#### Substitute

"subsections (2) and (6A)".

(2) After section 121(6)-

#### Add

"(6A) Where an off-balance sheet exposure mentioned in subsection (1) of an authorized institution is a single-name credit default swap that falls within section 226I(1) and the default risk exposure in respect of the swap is determined in accordance with section 226I(3), the institution must determine the risk-weight attributable to the exposure by reference to the attributed risk-weight of the counterparty in respect of the swap without taking into account any recognized credit risk mitigation afforded to the swap.".

# 47. Section 122 amended (calculation of risk-weighted amount of exposures in respect of repo-style transactions booked in banking book)

(1) Section 122, heading-

Repeal

"repo-style transactions"

#### Substitute

"assets underlying SFTs".

(2) Section 122(1)-

# Repeal subsection (1)

#### Substitute

- "(1) An authorized institution must calculate the risk-weighted amount of an exposure in respect of the asset underlying an SFT booked in its banking book in accordance with the following provisions.".
- (3) Section 122(2)-

#### Repeal

"Where the repo-style transaction"

#### Substitute

"Where the SFT is a repo-style transaction that".

(4) Section 122-

#### **Repeal subsection (3).**

(5) Section 122(4)-

# Repeal

"Where the repo-style transaction"

# Substitute

"Where the SFT is a repo-style transaction that".

(6) Section 122(4)-

# Repeal paragraph (a).

(7) After section 122(4)-

Add

"(5) Where the asset underlying an SFT is a securitization issue, an authorized institution must determine the risk-weight attributable to the asset in accordance with Part 7.".

# 48. Section 123 amended (calculation of risk-weighted amount of exposures in respect of repo-style transactions booked in trading book)

(1) Section 123, heading-

Repeal

"repo-style transactions"

#### Substitute

"assets underlying SFTs".

(2) Section 123-

Repeal

"in respect of a repo-style transaction"

# Substitute

"in respect of the asset underlying an SFT".

(3) Section 123-

Repeal paragraph (b).

#### 49. Section 123A added

After section 123-

#### Add

#### "123A. Calculation of risk-weighted amount of default risk exposures in respect of SFTs

- (1) Subject to subsection (2), an authorized institution that has an IMM(CCR) approval for SFTs must calculate the riskweighted amount of its default risk exposures in respect of SFTs (whether booked in its banking book or trading book) using the IMM(CCR) approach.
- (2) Where-
  - (a) an authorized institution does not have an IMM(CCR) approval for SFTs;
  - (b) an authorized institution has an IMM(CCR) approval for SFTs that does not include SFTs that are long settlement transactions; or
  - (c) an authorized institution is permitted, under section 10B(5) or (6), not to use the IMM(CCR) approach for certain SFTs,

the institution must calculate the risk-weighted amount of its default risk exposures in respect of SFTs (whether booked in its banking book or trading book) that are not, by virtue of the circumstance mentioned in paragraph (a), (b) or (c), subject to the IMM(CCR) approach, in accordance with subsections (3) to (6).

(3) Where the SFT is a repo-style transaction which falls within paragraph (a) or (b) of the definition of *repo-style transaction* in section 2(1), the authorized institution must treat the securities sold or lent under the transaction as an on-balance sheet exposure to the counterparty secured on the money or 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 default risk 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 applicable to the transaction.

- (4) Where the SFT is a repo-style transaction [that] falls within paragraph (c) of the definition of *repo-style transaction* in section 2(1), an authorized institution must 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 default risk 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 applicable to the transaction.
- (5) Where the SFT is a margin lending transaction, the authorized institution must calculate the risk-weighted amount of its default risk 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 applicable to the transaction.
- (6) Where the SFT is a repo-style transaction that falls within paragraph (d) of the definition of *repo-style transaction* in section 2(1)-
  - (a) if and to the extent that the authorized institution has provided collateral in the form of money under the transaction, the institution must 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 default risk 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 applicable to the transaction;
  - (b) if and to the extent that the authorized institution has provided collateral in the form of securities under the transaction, the institution must treat those securities as an on-balance sheet exposure to the counterparty secured on the securities borrowed by the institution and, accordingly, calculate the riskweighted amount of its default risk 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 applicable to the transaction.".

#### 50. Section 124 amended (recognized collateral)

(1) Section 124, after paragraph (e)-

#### Add

- "(ea) if the collateral is provided under a margin agreement for OTC derivative transactions, credit derivative contracts or SFTs, the institution has-
  - (i) devoted sufficient resources to enable the orderly operation of the agreement; and
  - (ii) has collateral management policies in place to control, monitor and report-
    - (A) risks (including liquidity risk and concentration risk) associated with the agreement;
    - (B) reuse of collateral; and
    - (C) the rights ceded by the institution in respect of collateral posted;".
- (2) Section 124(f)-

# Repeal

"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".

(3) Section 124(h)-

#### Repeal

"section 125"

# Substitute

"section 125(1)".

# 51. Section 125 amended (collateral which may be recognized for purposes of section 124(h))

(1) Section 125-

Renumber the section as section 125(1).

(2) Section 125(1)-

# Repeal

"For the purposes of"

#### Substitute

"Subject to subsection (2), for the purposes of".

(3) After section 125(1)-

# Add

"(2) Any reference to debt securities in subsection (1) does not include debt securities which, if being treated as an on-balance sheet exposure of an authorized institution, would fall within the definition of *re-securitization exposure* in section 227(1).".

# 52. Section 126 amended (calculation of risk-weighted amount of exposures taking into account credit risk mitigation effect of recognized collateral)

(1) Section 126(2)(a)-

#### Repeal

"section 125"

#### Substitute

"section 125(1)".

(2) Section 126-

# **Repeal subsection (4)**

#### Substitute

- "(4) An authorized institution must-
  - (a) if the recognized collateral is not a securitization issue, determine the risk-weight to be allocated to the collateral in accordance with sections 109, 110, 111, 112, 113, 114, 115 and 116 as if the collateral were an on-balance sheet exposure; and
  - (b) if the recognized collateral is a securitization issue, determine the risk-weight to be allocated to the collateral in accordance with sections 237, 238 and 239 as if the collateral were an on-balance sheet exposure.".

# 53. Section 129 amended (calculation of risk-weighted amount of OTC derivative transactions and credit derivative contracts)

Section 129(1)-

#### Repeal paragraphs (a) to (d)

#### Substitute

- "(a) dividing the outstanding default risk exposure of the transaction, 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 2 products derived from the application of paragraph (b).".

#### 54. Section 130A added

After section 130-

Add

#### **"130A.** Application of section 131

Where an authorized institution uses the IMM(CCR) approach to calculate the default risk exposure of a netting set that contains OTC derivative transactions or credit derivative contracts-

- (a) subject to paragraph (b), the institution must take into account the effect of any recognized netting in the manner [set out] OR [mentioned] in Part 6A instead of in the manner [set out] OR [mentioned] in section 131;
- (b) paragraph (a) does not apply in the case of transactions or contracts for which the institution is permitted, under section 10B(5) or (6), to use the current exposure method.".

# 55. Section 131 amended (netting of OTC derivative transactions and netting of credit derivative contracts booked in trading book)

(1) Section 131, heading-

Repeal

"booked in trading book".

(2) Section 131(5), definition of *derivative transaction*, paragraph (b)-

Repeal

"booked in the trading book".

# 56. Section 137 amended (maturity mismatches)

Section 137(3)-

# Repeal

"section 125"

# Substitute

"section 125(1)".

#### 57. Section 139 amended (interpretation of Part 6)

(1) Section 139(1), definition of *credit equivalent amount*-

#### **Repeal paragraph (b)**

#### Substitute

- "(b) in the case of an exposure which is an OTC derivative transaction or credit derivative contract, using the current exposure method;".
- (2) Section 139(1)-

#### Repeal the definition of *eligible provisions*

#### Substitute

"*eligible provisions* ( ), in relation to an authorized institution, means the sum of-

- the institution's specific provisions, partial write-offs, regulatory reserve for general banking risks and collective provisions attributed to non-securitization exposures which are subject to the IRB approach; and
- (b) any discounts falling within section 163(3) or 164(5) on exposures referred to in paragraph (a) which are in default,

exclusive of any CVA and CVA loss;".

(3) Section 139(1)-

#### Repeal the definition of expected loss amount

#### Substitute

- "*expected loss amount* ( ), in relation to an exposure of an authorized institution, means-
  - (a) subject to paragraph (b), the expected loss amount of the exposure calculated by multiplying the EL of the exposure by the EAD of the exposure;
  - (b) if the exposure is an off-balance sheet exposure arising from a netting set that consists of one or more than one OTC derivative transaction or a credit derivative contract, the expected loss amount of the exposure calculated by multiplying the EL of the exposure by the outstanding default risk exposure of the netting set;".

(4) Section 139(1), definition of *exposure at default*, after "credit equivalent amount"-

#### Add

", default risk exposure or outstanding default risk exposure, as the case may be".

(5) Section 139(1), definition of *principal amount*, paragraph (b), after subparagraph (iv)-

#### Add

- "(v) in the case of an exposure to a person arising from the person holding collateral posted by the institution in a manner that is not bankruptcy remote from the person, the fair value of the collateral;".
- (6) Section 139(1), definition of *recognized collateral*, paragraph (b)(ii), after "section 77(a), (b), (c), (d), (e)"-

#### Add

", (ea)".

(7) Section 139(1)-

#### Repeal the definition of recognized financial collateral

#### Substitute

*"recognized financial collateral (* 

) means any collateral-

- (a) that falls within any description in section 80(1)(a), (b), (c) or (d); and
- (b) that satisfies the requirements under section 77(a), (b), (c), (d), (e), (ea) and (f),

except collateral in the form of real property or in the form of debt securities which, if being treated as an on-balance sheet exposure of an authorized institution, would fall within the definition of *resecuritization exposure* in section 227(1);".

(8) Section 139(1)-

#### Add in alphabetical order

- "SFT risk-weighted amount ( ), in relation to [a portfolio of SFTs,] means the sum of the default risk risk-weighted amounts for all the counterparties to the SFTs where the default risk riskweighted amount for each of the counterparties is calculated as the product of-
  - (a) the sum of default risk exposures across all SFTs with the counterparty calculated under section 202(2) or 209(3), as the case requires; and
  - (b) the relevant risk-weight attributable to the exposures determined under Part 6;".

### 58. Section 140 amended (calculation of risk-weighted amount of exposures)

(1) Section 140-

#### **Repeal subsection (1)**

#### Substitute

- "(1) Subject to subsection (2) and section 141, an authorized institution must calculate the risk-weighted amount of the institution's exposure to credit risk by aggregating the figures derived from the application of subsections (1A), (1B) and (1C).
  - (1A) Subject to subsections (1B) and (1C), the authorized institution must multiply the EAD of the exposure by the exposure's relevant risk-weight.
- (1B) In the case of an equity exposure in respect of which-
  - (a) the authorized institution uses the internal models method; and
  - (b) the relevant risk-weight set out in section 186(3)(a)(ii) does not apply,

the institution must multiply the potential loss of the equity exposure as calculated using the institution's internal models by 12.5 in accordance with section 186.

- (1C) Subject to subsection (1F), in the case of a counterparty credit risk exposure in respect of OTC derivative transactions, credit derivative transactions or SFTs-
  - (a) the authorized institution must, if it has an IMM(CCR) approval and an approval to use the IMM approach to calculate specific risk for interest rate exposures, calculate the risk-weighted amount of the counterparty credit risk exposure as the sum of-
    - (i) the IMM(CCR) risk-weighted amount of the transactions concerned that are covered by the IMM(CCR) approval;
    - (ii) the CEM risk-weighted amount or SFT risk-weighted amount, as the case may be, of the transactions concerned that are not covered by the IMM(CCR) approval or that fall within section 10B(5) or (6); and

- (iii) the CVA risk-weighted amount determined using the advanced CVA method, the standardized CVA method, or a combination of those 2 methods that is permitted under these Rules, as the case requires;
- (b) the authorized institution must, if it has an IMM(CCR) approval but does not have an approval to use the IMM approach to calculate specific risk for interest rate exposures, calculate the risk-weighted amount of the [counterparty credit risk] exposure as the sum of-
  - (i) the IMM(CCR) risk-weighted amount of the transactions concerned that are covered by the IMM(CCR) approval;
  - (ii) the CEM risk-weighted amount or SFT risk-weighted amount, as the case may be, of the transactions concerned that are not covered by the IMM(CCR) approval or that fall within section 10B(5) or (6); and
  - (iii) the CVA risk-weighted amount determined using the standardized CVA method;
- (c) the authorized institution must, if it does not have an IMM(CCR) approval for any of its transactions, calculate the risk-weighted amount of the exposure as the sum of-
  - (i) the CEM risk-weighted amount;
  - (ii) the SFT risk-weighted amount; and
  - (iii) the CVA risk-weighted amount determined using the standardized CVA method.
- (1D) For the purposes of subsection (1C), the authorized institution may, in the case of a default risk exposure in respect of long settlement transactions, determine the exposure's relevant risk-weight using the STC approach on a permanent basis.
- (1E) An authorized institution is not required to hold regulatory capital for CVA risk in respect of transactions with a CCP.
- (1F) For the purposes of subsection (1C)(a)(iii), (b)(iii) and (c)(iii), an authorized institution must regard the total amount of CVA capital charge for its counterparties determined in accordance with Division 3 of Part 6A as the basis for determining the CVA risk-

weighted amount of the institution and regardless of whether any of those counterparties fall within Part 6.".

(2) Section 140-

Repeal subsection (1E).".

# 59. Section 140A amended (calculation of exposure at default)

Section 140A(1)-

### Repeal

"165, 166, 179, 180, 181, 182, 183, 195, 196, 197, 201 or 202,"

#### Substitute

"164A, 165, 166, 179, 180, 180A, 181, 182, 183, 195, 196, 197, 201 or 202, or Part 6A,".

### 60. Section 141 amended (exposures to be covered)

(1) Section 141(a)-

### **Repeal subparagraph (ii)**

#### Substitute

- "(ii) which are subject to the requirements of Part 7; or
- (iii) which are subject to the requirements of Division 4 of Part 6A;".
- (2) Section 141-

#### Repeal paragraph (b)

#### Substitute

- "(b) all of the institution's exposures to counterparties-
  - (i) under OTC derivative transactions, credit derivative contracts or SFTs booked in its trading book; or
  - (ii) in respect of assets posted by the institution as collateral that are held by the counterparties in a manner that is not bankruptcy remote from the counterparties,

except such exposures that are subject to deduction from any of the institution's CET1 capital, additional Tier 1 capital and Tier 2 capital under [Division ... of Part ...]<sup>5</sup>.".

(3) Section 141(b), after "trading book"-

# Add

"except such exposures which are subject to the requirements of Division 4 of Part 6A".

 $<sup>^{5}</sup>$  The contents of the Division will be included in the 2<sup>nd</sup> batch of amendment rules for implementation of the revised definition of capital.

#### 61. Section 149 amended (default of obligor)

(1) Section 149(2)(a)(ii)-

#### Repeal

"consolidated"

#### Substitute

"consolidation".

(2) Section 149-

# Repeal subsections (5A) and (5B)

### Substitute

- "(5A) Subject to subsections (5B) to (5D), an authorized institution must treat its exposures to all individual obligors in a connected group as being in default if-
  - (a) a default of an obligor (referred to in this subsection and subsection (5B) as *defaulting obligor*) in the connected group has occurred; and
  - (b) the defaulting obligor has been rated substantially on the basis of the economic or financial interdependence between the members in the connected group in accordance with the institution's policy and practices referred to in section 154(d).
- (5B) Subsection (5A) does not apply in respect of the authorized institution's exposures to all obligors in the connected group if-
  - (a) the default referred to in paragraph (a) of that subsection (referred to in this subsection as *relevant default*) is a default to which subsection (2)(a) applies by virtue of-
    - (i) the fact that the relevant default is a retail exposure in respect of which the defaulting obligor is past due for more than 90 days in respect of any payment owing by the obligor to the institution in respect of that exposure; and
    - (ii) the fact that the defaulting obligor is not also past due for more than 90 days in respect of any payment owing by the obligor to the institution in

respect of any other exposure which is not a retail exposure; and

- (b) the institution has not, following the occurrence of the relevant default, exercised its discretion under subsection (2)(a)(ii) to treat all other outstanding credit obligations of the defaulting obligor to the institution (or to any member of the consolidation group of the institution) as being in default.
- (5C) The authorized institution may disregard subsection (5A) in respect of the institution's exposures to any obligor in the connected group if that obligor has not been rated on the basis referred to in paragraph (b) of that subsection.
- (5D) The authorized institution may disregard subsection (5A) in respect of the institution's exposures to any obligor in the connected group if the institution demonstrates, to the satisfaction of the Monetary Authority, that disregarding that subsection in respect of those exposures-
  - (a) is neither imprudent nor unreasonable; and
  - (b) will not materially prejudice the calculation of the institution's regulatory capital for credit risk.".

#### 62. Section 153 amended (rating assignment horizon)

(1) Section 153(b)-

# Repeal

"obligor; and"

# Substitute

"obligor;".

(2) Section 153(c)-

# Repeal

"contractual obligations."

# Substitute

"contractual obligations; and".

(3) After section 153(c)-

# Add

"(d) in the case of estimate of PD for an obligor that is highly leveraged or whose assets are predominantly traded assets, ensure such estimate reflects the performance of the obligor's assets based on volatilities calibrated to data from periods of significant financial stress.".

#### 63. Section 154 amended (rating coverage)

(1) Section 154-

# Repeal paragraph (c)

#### Substitute

- "(c) subject to paragraphs (d) and (e), rate on an individual basis each legal entity to which the institution is exposed;".
- (2) Section 154(d)(iii)-

#### Repeal

"manner."

# Substitute

"manner; and".

(3) After section 154(d)-

# Add

"(e) have set out in policies and put in operation a process for the identification of specific wrong-way risk for each legal entity to which the institution is exposed.".

# 64. Section 156 amended (calculation of risk-weighted amount of corporate, sovereign and bank exposures)

(1) Section 156(2)-

### Repeal

"subsection (5)"

#### Substitute

"subsections (5) and (9)".

(2) After section 156(3)-

#### Add

- "(3A) Where an authorized institution that uses the advanced CVA method to calculate its CVA capital charge can demonstrate to the satisfaction of the Monetary Authority that its VaR model used in the advanced CVA method covers the effects of rating migrations, the institution may-
  - (a) calculate the risk-weight applicable to a default risk exposure in respect of OTC derivative transactions or credit derivative contracts under section 156(2) with the full maturity adjustment set equal to 1; and
  - (b) calculate the risk-weight applicable to a default risk exposure in respect of OTC derivative transactions or credit derivative contracts under section 156(5) with the full maturity adjustment set equal to 1 provided that the credit protection provider is one of the counterparties covered by the CVA capital charge calculation.".
- (3) After section 156(8)-

# Add

"(9) Where an exposure falls within section 140(1D), an authorized institution may calculate the risk-weighted amount of the exposure by multiplying the EAD of the exposure by the relevant risk-weight attributable to that exposure determined under Part 4.

(10) In this section-

# full maturity adjustment (

(a) in relation to Formula 16, means that amount calculated by the component " $(1 - 1.5 \text{ x b})^{-1} \text{ x } (1 + (M - 2.5) \text{ x b})$ " of that formula; and

)-

(b) in relation to Formula 17, means that amount calculated by the component " $\frac{1+(M_{os}-2.5)\times b_{os}}{1-1.5\times b_{os}}$ ," of that formula.".

#### 65. Section 157A added

After section 157-

Add

# "157A.Provisions supplementary to section 156(2) and (5) - asset value correlation multiplier for exposures to certain financial institutions or financial groups

- (1) Where a corporate, sovereign or bank exposure of an authorized institution is to an obligor that falls within subsection (2), the institution must multiply the correlation (R or  $\rho_{os}$ ) in the risk-weight function set out in Formula 16 or 17, as the case requires, by 1.25.
- (2) Subsection (1) applies to an obligor that is-
  - (a) a large regulated financial institution and its subsidiaries (if any);
  - (b) a relevant member of a large regulated financial group; or
  - (c) an unregulated financial institution.
- (3) An authorized institution must calculate all of the measures mentioned in the definition of *substantial supervised entity* in subsection (4) based on all available financial statements mentioned in that definition before the institution decides that a large regulated financial institution is not a substantial supervised entity.
- (4) In this section-

*large regulated financial group* ( ) means a group, comprised of an ultimate holding company and all its subsidiaries, of which-

- (a) subject to paragraph (b), a substantial supervised entity is a member; or
- (b) at least one large regulated financial institution is a member in any case where an authorized institution has not, for the purposes of subsection (1) as read with subsection (2), determined whether any large regulated financial institution which is a member of the group is also a substantial supervised entity;

*large regulated financial institution* ( ) means a supervised entity with total assets of not less than \$780 billion as determined by reference to-

- (a) the entity's most recent audited consolidated financial statements which includes that entity in the consolidation; and
- (b) the entity's most recent audited financial statements (if any);

*relevant member* ( ), in relation to a large regulated financial group, means a holding company, or a subsidiary of a holding company, which is a member of the group but excluding any such holding company or subsidiary that falls within subsection (2)(a);

- *substantial supervised entity* ( ), in relation to a group comprising an ultimate holding company and all of its subsidiaries, means a large regulated financial institution which is a member of the group and the total assets of which, the total annual revenue of which, or the total assets and total annual revenue of which, accounts for not less than 50% of the total assets of the group, the total annual revenue of the group, or the total assets and total annual revenue of the group, as the case may be, as determined by reference to-
  - (a) in the case of the numerator for the calculation of each of those measures-
    - (i) the most recent audited consolidated financial statements of the large regulated financial institution which includes that institution in the consolidation; and
    - (ii) the most recent audited financial statements of the large regulated financial institution (if any);
  - (b) in the case of the denominator for the calculation of each of those measures, the most recent audited consolidated financial statements of the group which includes all the holding companies in the group and all the subsidiaries of those holding companies;

*supervised entity* ( ) means an entity that is supervised by a financial regulator that imposes prudential requirements (including, but not limited to, prudential requirements relating to capital adequacy, liquidity or solvency) that are consistent with international standards;

# unregulated financial institution (

) means an

entity-

- (a) that does not fall within the definition of *supervised entity* or *relevant member* in this section; and
- (b) whose main business falls within one or more of the following categories-
  - (i) management of financial assets;
  - (ii) lending;
  - (iii) factoring;
  - (iv) leasing;
  - (v) provision of credit enhancement;
  - (vi) securitization;
  - (vii) investment;
  - (viii) financial custody;
  - (ix) central counterparty services;
  - (x) proprietary trading;
  - (xi) any other financial services activity as specified in Part 11 of Schedule 1.".
# 66. Section 158 amended (provisions supplementary to section 156 - risk-weights for specialized lending)

(1) Section 158(1), after "small-and-medium sized corporates"-

#### Add

"or section 157A in respect of exposures to large regulated financial institutions and their subsidiaries (if any), relevant members of a large regulated financial group or unregulated financial institutions, as the case requires".

(2) Section 158, after subsection (1)-

## Add

"(1A) Section 157A(4) applies to the interpretation of subsection (1) as it applies to the interpretation of section 157A.".

## 67. Section 160 amended (loss given default under foundation IRB approach)

(1) Section 160(1)(a), before "use a supervisory estimate"-

#### Add

"subject to paragraphs (c) and (d),".

(2) Section 160(1)(a)(ii)-

## Repeal

"collateral; and"

## Substitute

"collateral;".

(3) Section 160(1)(b), before "use a supervisory estimate"-

#### Add

"subject to paragraphs (c) and (d),".

(4) Section 160(1)(b)-

## Repeal

"bank exposures."

## Substitute

"bank exposures;".

(5) After section 160(1)(b)-

## Add

- "(c) use 100% for the LGD of its default risk exposures in respect of single-name credit default swaps if-
  - (i) the swaps fall within section 226I(1); and
  - (ii) those exposures are determined in accordance with section 226I(3); and
- (d) for transactions that fall within section 226I(4), use 100% for the LGD of the institution's default risk exposures in respect of the transactions if the institution has the Monetary Authority's

approval to calculate incremental risk charge for the transactions and the determination of the default risk exposures under that section has used existing calculations for the incremental risk charge that already contain an LGD assumption.".

(6) Section 160(3), Formula 18, component LGD-

# Repeal

"45% for the LGD of a senior exposure"

## Substitute

"LGD specified in subsection (1)(a), (c) or (d), as the case may be,".

(7) Section 160(4)(a), (c)(iii) and (e)-

## Repeal

"of 45% specified in subsection (1)(a)"

## Substitute

"specified in subsection (1)(a), (c) or (d), as the case may be".

## 68. Section 161 amended (loss given default under advanced IRB approach)

(1) Section 161(1)-

## Repeal

"An authorized institution"

## Substitute

"Subject to subsections (2) and (3), an authorized institution".

(2) After section 161(2)-

## Add

- "(3) An authorized institution that uses the advanced IRB approach must comply with section 160(1)(c) or (d), as the case requires, in estimating the LGD of a facility type that comprises default risk exposures in respect of-
  - (a) single-name credit default swaps that fall within the description in section 160(1)(c)(i) and (ii); or
  - (b) transactions that fall within the description in section 160(1)(d),

as if the institution were an authorized institution that uses the foundation IRB approach.".

#### 69. Section 164A added

After section 164-

## Add

# "164A. Application of sections 165 and 166(b) and (c)

Sections 165 and 166(b) and (c) do not apply to OTC derivative transactions or credit derivative contracts for which an authorized institution has an IMM(CCR) approval except for transactions or contracts for which the institution is permitted, under section 10B(5) or (6), to use the current exposure method.".

## 70. Section 168 amended (maturity under advanced IRB approach)

(1) Section 168(1)(a)(ii), after "paragraph (b)"-

#### Add

", (ba), (bb)".

(2) Section 168(1)(b)-

## Repeal

"paragraph (c)"

#### Substitute

"paragraphs (ba), (bb) and (c)".

(3) After section 168(1)(b)-

#### Add

- "(ba) if the exposure is a default risk exposure in respect of a netting set calculated using the IMM(CCR) approach and the original maturity of the longest-dated contract contained in the netting set is greater than 1 year, the M of the exposure is calculated by the use of Formula 20A instead of Formula 20;
  - (bb) subject to paragraph (c)-
    - (i) if the exposure is a default risk exposure in respect of a netting set calculated using the IMM(CCR) approach and all the transactions in the netting set have an original maturity of not more than 1 year-
      - (A) the effective maturity of each transaction in the netting set is calculated by the use of Formula 20; and
      - (B) the effective maturity of the netting set is calculated as the weighted average effective maturity of the transactions (using the notional amount of each transaction as the weight); and
    - (ii) if the netting set referred to in subparagraph (i) contains only 1 transaction, Formula 20 is used to calculate the M of the exposure;".
- (4) Section 168(1)(c), after "paragraph (b)"-

#### Add

"or (bb)".

(5) Section 168(1)(d)-

## Repeal

"if the exposure"

## Substitute

"subject to paragraphs (ba) and (bb), if the exposure".

(6) Section 168(1)(d), after "the M"-

## Add

"but the M must be not less than 1 year".

(7) Section 168(1), after Formula 20-

# Add

## "FORMULA 20A

## FORMULA TO BE USED INSTEAD OF FORMULA 20 WHERE SECTION 168(1)(ba) IS APPLICABLE

$$M = \frac{\sum_{k=1}^{t_k \leq 1 \text{ year}} \text{Effective } \text{EE}_k \times \Delta t_k \times df_k + \sum_{t_k > 1 \text{ year}} \text{EE}_k \times \Delta t_k \times df_k}{\sum_{k=1}^{t_k \leq 1 \text{ year}} \text{Effective } \text{EE}_k \times \Delta t_k \times df_k}$$

where-

- (a)  $df_k$  is the risk-free discount factor for future time period  $t_k$ ;
- (b) Effective  $EE_k$  = effective EE at time  $t_k$  calculated in accordance with section 226F;
- (c) Maturity = the time when the transaction which has the longest residual maturity in the netting set matures; and
- (d)  $\Delta t_k = t_k t_{k-1}$  is the time interval between  $t_k$  and  $t_{k-1}$  when effective EE is calculated at dates that are not equally spaced over time.
- (8) Section 168-

## **Repeal subsection (4)**

#### Substitute

- "(4) Where an exposure of an authorized institution falls within subsection (5)(ab)-
  - (a) subject to paragraphs (b) and (c), the institution must calculate the M of the exposure in accordance with subsection (1)(d);
  - (b) subject to paragraph (c), if the exposure is a default risk exposure calculated using the IMM(CCR) approach, the institution must calculate the M in accordance with subsection (1)(bb); and
  - (c) in determining the M, the institution must apply a minimum level of M equal to-
    - (i) 10 days for a netting set which contains OTC derivative transactions, credit derivative contracts or margin lending transactions;
    - (ii) 5 days for a netting set which contains repo-style transactions; and
    - (iii) 10 days for a netting set which contains transactions or contracts which fall within both subparagraphs (i) and (ii);".
- (9) Section 168(5), definition of *relevant short-term exposure*, paragraph (a)-

## Repeal

"or securities margin lending transaction"

## Substitute

", credit derivative contract or margin lending transaction".

(10) Section 168(5), definition of *relevant short-term exposure*, after paragraph (a)-

## Add

"(ab) means an exposure in respect of a netting set in respect of which all the transactions or contracts fall within the descriptions in paragraph (a);".

## 71. Section 180A added

After section 180-

## Add

## "180A. Application of sections 181 and 182(b) and (c)

Sections 181 and 182(b) and (c) do not apply to OTC derivative transactions or credit derivative contracts for which an authorized institution has an IMM(CCR) approval except for transactions or contracts for which the institution is permitted, under section 10B(5) or (6), to use the current exposure method.".

## 72. Section 191 amended (PD/LGD approach - rating assignment horizon)

(1) Section 191(b)-

## Repeal

"obligor; and"

## Substitute

"obligor;".

(2) Section 191(c)-

## Repeal

"obligor's obligations."

## Substitute

"obligor's obligations; and".

(3) After section 191(c)-

# Add

"(d) in the case of estimate of PD for an obligor that is highly leveraged or whose assets are predominantly traded assets, ensure such estimate reflects the performance of the obligor's assets based on volatilities calibrated to data from periods of significant financial stress.".

# 73. Section 194 amended (PD/LGD approach - calculation of risk-weighted amount of equity exposures)

(1) Section 194(1), after "157,"-

## Add

"157A,".

(2) Section 194(1), after "164,"-

Add

"164A,".

(3) Section 194(1)(b)(i), after "small-and-medium sized corporates"-

## Add

"or section 157A in respect of exposures to large regulated financial institutions and their subsidiaries (if any), relevant members of a large regulated financial group or unregulated financial institutions, as the case requires".

(4) Section 194, after subsection (1)-

## Add

"(1A) Section 157A(4) applies to the interpretation of subsection (1) as it applies to the interpretation of section 157A.".

#### 74. Section 202 substituted

Section 202-

#### **Repeal the section**

#### Substitute

#### "202. Securities financing transactions

- (1) Subject to subsections (2), (3), (4) and (5), an authorized institution that has an IMM(CCR) approval for SFTs must apply sections 75, 76 and 76A(1) to all its SFTs.
- (2) Where-
  - (a) an authorized institution does not have an IMM(CCR) approval for SFTs;
  - (b) an authorized institution has an IMM(CCR) approval for SFTs that does not include SFTs that are long settlement transactions; or
  - (c) an authorized institution is permitted, under section 10B(5) or (6), not to use the IMM(CCR) approach for certain SFTs,

the institution must calculate the risk-weighted amount of its default risk exposures in respect of SFTs (whether booked in its banking book or trading book) that are not, by virtue of the circumstance mentioned in paragraph (a), (b) or (c), subject to the IMM(CCR) approach, in accordance with sections 75, 76 and 76A(3) to (6) [and subsections (3) to (5)].

- (3) Where an authorized institution applies section 75 to an SFT booked in its banking book, the institution must determine the risk-weight to be allocated to its exposure under the SFT in accordance with-
  - (a) the risk-weight function for corporate, sovereign and bank exposures;
  - (b) the risk-weight function for retail exposures; or
  - (c) the market-based approach or the PD/LGD approach for equity exposures,

as the case may be, according to the nature of the asset underlying the SFT, and, where applicable, the IRB class within which the issuer of the assets falls.

- (4) Where an authorized institution applies section 76 to an SFT booked in its trading book, the institution must determine the risk-weight to be allocated to its exposure under the SFT by reference to Part 8.
- (5) Where an authorized institution applies section 76A(1), or section 76A(3) to (6), as the case requires, to an SFT, the institution must determine the risk-weight to be allocated to its exposure under the SFT in accordance with-
  - (a) the risk-weight function for corporate, sovereign and bank exposures; or
  - (b) the risk-weight function for retail exposures,

as the case may be, according to the IRB class within which an exposure to the counterparty to the SFT falls and, where applicable, in accordance with the treatment of credit risk mitigation set out in Division 10.".

## 75. Section 203 amended (credit risk mitigation - general)

(1) Section 203(1)

## Repeal

"An authorized institution"

## Substitute

"Subject to subsections (3) and (4), an authorized institution".

(2) Section 203, after subsection (2)-

## Add

- "(3) An authorized institution must not take into account the effect of recognized credit risk mitigation in calculating the risk-weighted amount of its exposures in accordance with this Division to the extent that the credit risk mitigating effect concerned has already been taken into account in the institution's estimates of PD, LGD or EAD in accordance with provisions of these Rules other than the provisions of this Division.
- (4) Where an authorized institution has bought credit protection for an exposure and the credit protection is in the form of a single-name credit default swap that falls within section 226I(1), the institution must not take into account the credit risk mitigating effect of that swap when calculating the risk-weighted amount of the exposure.".

## 76. Section 209 amended (recognized netting)

(1) Section 209(2)(b)-

#### Repeal

"booked in the institution's trading book".

(2) After section 209(4)-

## Add

- "(5) Where an authorized institution uses the IMM(CCR) approach to calculate the EAD of a netting set that contains OTC derivative transactions or credit derivative contracts, the institution must take into account the effect of any recognized netting in respect of OTC derivative transactions or credit derivative contracts in the manner set out in Part 6A instead of the manner set out in section 209(1), (2) and (4) except for transactions or contracts for which the institution is permitted, under section 10B(5) or (6), not to use the IMM(CCR) approach.
- (6) Where an authorized institution uses the IMM(CCR) approach to calculate the EAD of a netting set that contains SFTs, the institution must take into account the effect of any recognized netting in respect of repo-style transactions in the manner set out in Part 6A instead of in the manner set out in section 209(1) and (3) except for transactions for which the institution is permitted, under section 10B(5) or (6), not to use the IMM(CCR) approach.".

77. Section 211 amended (recognized guarantees and recognized credit derivative contracts under substitution framework for corporate, sovereign and bank exposures under foundation IRB approach and for equity exposures under PD/LGD approach)

Section 211-

## **Repeal subsection (2)**

#### Substitute

- "(2) For the purposes of subsection (1), sections 98(a)(vi) and 99(1)(b)(vi) are deemed to read as-
  - "(vi) a corporate that-
    - (A) has an ECAI issuer rating; or
    - (B) has an exposure that-
      - (I) is assessed under the institution's rating system; and
      - (II) is assigned to an obligor grade with an estimate of PD;".

## 78. Section 216 amended (provisions supplementary to section 214(1) substitution framework for corporate, sovereign and bank exposures under foundation IRB approach and for equity exposures under PD/LGD approach)

(1) Section 216(1), after "subsections (2), (3),"-

#### Add

"(3A),".

(2) Section 216(2)(a)-

#### Repeal

"subsection (3)"

## Substitute

"subsections (3) and (3A)".

(3) Section 216, after subsection (3)-

## Add

- "(3A) 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 98

(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 counter-guarantee 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.".

## 79. Section 217 amended (provisions supplementary to section 214(1) substitution framework for corporate, sovereign and bank exposures under advanced IRB approach and for retail exposures under retail IRB approach)

(1) Section 217(2)

### Repeal

"Subject to subsection (3)"

## Substitute

"Subject to subsections (3) and (4)".

(2) Section 217(2)(a)-

#### Repeal

"and subsection (3)".

(3) Section 217, after subsection (3)-

## Add

- "(4) 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 98

(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 counter-guarantee 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.".

# 80. Section 224 amended (application of scaling factor)

(1) Section 224-

Renumber the section as section 224(1).

(2) Section 224(1)-

## Repeal

"An authorized institution"

## Substitute

"Subject to subsection (2), an authorized institution".

(3) After section 224(1)-

# Add

"(2) Subsection (1) does not apply to CVA risk-weighted amount.".

# 81. Section 226 amended (calculation of capital floor)

Section 226(5)(a)-

# Repeal subparagraphs (i) and (ii)

## Substitute

- "(i) the STC approach for non-securitization exposures;
- (ii) the STC(S) approach for securitization exposures; and
- (iii) the methodologies prescribed under Division 4 of Part 6A for exposures to CCPs;".

#### 82. Part 6A added

After Part 6-

Add

#### "PART 6A

## CALCULATION OF COUNTERPARTY CREDIT RISK

#### **Division 1 - General**

#### 226A. Interpretation of Part 6A

(1) In this Part-

*advanced CVA method* ( ) means the method of calculating an authorized institution's CVA capital charge set out in section 226M;

*cross-product net amount* ( ), in relation to any bilateral master agreements or transactions covered by a valid cross-product netting agreement, means a net sum of-

- (a) the positive and negative close-out values of the individual bilateral master agreements; and
- (b) the positive and negative mark-to-market values of the individual transactions;

*current exposure* ( ), in relation to the use of the IMM(CCR) approach and a netting set with a counterparty, means the larger of-

- (a) zero; or
- (b) the market value of the transaction or transactions within the netting set that would be lost upon the default of the counterparty (but assuming no recovery on the value of that transaction or those transactions, as the case may be, in bankruptcy);

*CVA risk* ( ), in relation to a transaction with a counterparty, means the risk of mark-to-market

	losses in the transact credit valuation adju	ion arising from a change in the stment for the counterparty;
<i>effective expected exposure</i> ( ), in relation to a netting set, means the amount calculated in accordance with section 226F;		
effecti	ve EE ( exposure;	) means effective expected
<i>effective expected positive exposure</i> ( ), in relation to a netting set, means the amount calculated in accordance with section 226E or 226K, as the case requires;		
effecti	<i>ve EPE</i> ( positive exposure;	) means effective expected
eligible	e CVA hedge ( falls within section 2	) means a hedge which 226P(1);
<i>expected exposure</i> ( ), in relation to a netting set, means the amount calculated in accordance with section 226G;		
<b>EE</b> (	) means	expected exposure;
<i>margin agreement</i> ( ) means a contractual agreement or provisions to an agreement under which one counterparty must supply collateral to a second counterparty when an exposure of that second counterparty to the first counterparty exceeds a specified level;		
<i>margin period of risk</i> ( ) means the time period from the last exchange of collateral covering a netting set with a defaulting counterparty until the netting set is closed out and the resulting market risk is re-hedged;		
<i>minimum transfer amount</i> ( ), in relation to a margin agreement, means an amount below which no transfer of collateral is made;		
netting	r set (	) means-

a group of transactions with a counterparty that are subject to a valid bilateral netting (a)

agreement or a valid cross-product netting agreement; or

(b) a transaction with a counterparty that is not subject to a valid bilateral netting agreement or a valid cross-product netting agreement;

*single-name contingent credit default swap* ( ) means a single-name credit default swap the notional amount of which is referenced to the markto-market value of a transaction specified in the swap;

*specific wrong-way risk* ( ) means the risk that arises when the exposure to a counterparty is positively correlated with the probability of default of the counterparty due to the nature of the transactions with the counterparty;

*spread gamma* ( ), in relation to the calculation of the CVA of a counterparty, means a measure of the rate of change in delta to changes in the credit spread of the counterparty, where delta is the ratio of the change in the CVA to the change in the credit spread;

- *standardized CVA method* ( ) means the method of calculating an authorized institution's CVA capital charge set out in section 226O;
- *threshold* ( ), in relation to a margin agreement, means the maximum amount of unsecured exposure above which one party to the agreement has the right to call for collateral.
- (2) Subject to subsection (3), a reference in this Part to a valid cross-product netting agreement is to be construed, in relation to an authorized institution's transactions that are covered by an IMM(CCR) approval, to mean a written, bilateral agreement (referred to in this subsection as "netting arrangement") that allows netting across transactions of different product categories and in respect of which–
  - (a) the netting arrangement creates a single legal obligation for all individual bilateral master agreements and individual transactions covered by the netting arrangement, and provides, in effect, that

the institution would have a single claim or obligation to receive or pay only the cross-product net amount, in the event that a counterparty to the netting arrangement, or a counterparty to whom the netting arrangement has been validly assigned, fails to comply with any obligation under any of the bilateral master agreements or transactions due to default, insolvency, bankruptcy, or similar circumstance;

- (b) the institution has been given written and [reasoned] legal advice which concludes [with a high degree of certainty] that, in the event of a challenge in a court of law [or before an administrative authority], including a challenge resulting from default, insolvency, bankruptcy, or similar circumstance, the relevant court or administrative authority, as the case may be, would find the institution's exposure to be the cross-product net amount under-
  - the law of the jurisdiction in which the counterparty is incorporated or the equivalent location in the case of non-corporate entities, and if a branch of the counterparty is involved, then also under the law of the jurisdiction in which the branch is located;
  - (ii) the law that governs the individual transactions covered by the netting arrangement; and
  - (iii) the law that governs the netting arrangement;
- (c) the legal advice mentioned in paragraph (b)-
  - addresses the validity and enforceability of the netting arrangement under its terms and the impact of the netting arrangement on the material provisions of any individual bilateral master agreement covered by the netting arrangement; and
  - (ii) is-
    - (A) generally recognized by the legal community in Hong Kong; or

- (B) a memorandum of law that addresses all relevant issues in a reasoned manner;
- (d) the institution establishes and maintains procedures to verify that any transaction which is to be included in a netting set is covered by a legal advice that meets the requirements mentioned in [paragraphs (b) and (c)];
- (e) the institution establishes and maintain procedures to monitor developments in any law relevant to the netting arrangement in order to ensure that the netting arrangement continues to satisfy the requirements of this subsection applicable to it;
- (f) the netting arrangement is not subject to a provision that permits the non-defaulting counterparty to make only limited payment, or no payment at all, to the defaulter or the estate of the defaulter, regardless of whether or not the defaulter is a net creditor under the netting arrangement;
- (g) each bilateral master agreement covered by the netting arrangement falls within the definition of *valid bilateral netting agreement* in section 2(1) and the credit risk mitigation for each transaction covered by the netting arrangement meets the applicable requirements for the recognition of credit risk mitigation set out in Part 4, 5 or 6, as the case may be;
- (h) the institution maintains in its files documentation adequate to support the nettings under the netting arrangement;
- (i) the institution measures and manages its aggregate credit exposure to a counterparty on a net basis; and
- (j) the institution aggregates credit exposures to each counterparty to arrive at a single [legal] exposure across transactions covered by the netting arrangement and that aggregation is factored into credit limits and internal capital processes.
- (3) For the purposes of subsection (2)-
  - (a) repo-style transactions;

- (b) margin lending transactions; and
- (c) derivative contracts,

are to be treated as different product categories.

#### **Division 2 - IMM(CCR) Approach**

#### 226B. Application of Division 2

- (1) This Division applies to an authorized institution that has an IMM(CCR) approval for calculating the default risk exposure of some or all of the transactions mentioned in section 10A(2).
- (2) Unless the context otherwise requires, a reference to an authorized institution in this Division is a reference to an authorized institution which has an IMM(CCR) approval.
- (3) Unless otherwise expressly permitted by, and in accordance with, another section of these Rules, an authorized institution must calculate the default risk exposures in respect of all the transactions (however described) that are covered by its IMM(CCR) approval in accordance with this Division.

# 226C. Calculation of IMM(CCR) risk-weighted amount at portfolio level under IMM(CCR) approach

- (1) An authorized institution must, for each of its counterparties-
  - (a) calculate the sum of the default risk exposures (and outstanding default risk exposures in the case of netting sets that contain OTC derivative transactions or credit derivative contracts) in respect of all the netting sets with the counterparty based on effective EPEs that are estimated using current market data, and multiply the sum so calculated by the risk-weight applicable to the counterparty to obtain the risk-weighted amount of the sum (*risk-weighted amount A*); and

- (b) subject to subsection (3), calculate the sum of the default risk exposures (and outstanding default risk exposures in the case of netting sets that contain OTC derivative transactions or credit derivative contracts) in respect of all the netting sets with the counterparty based on effective EPEs that are estimated using a stress calibration as set out in paragraph 3(f) of Schedule 3A, and multiply the sum so calculated by the risk-weight applicable to the counterparty to obtain the risk-weighted amount of the sum (*risk-weighted amount B*).
- (2) An authorized institution must, after completing the calculations required under subsection (1)-
  - (a) aggregate all of its counterparties' risk-weighted amount A;
  - (b) aggregate all of its counterparties' risk-weighted amount B; and
  - (c) determine the IMM(CCR) risk-weighted amount as the greater of the 2 aggregates.
- (3) The calibration mentioned in subsection (1)(b) must be a single consistent stress calibration for the whole portfolio of counterparties concerned.

# 226D. Calculation of default risk exposure at netting set level under IMM(CCR) approach

(1) Subject to subsection (2), an authorized institution must use Formula 23A to calculate the default risk exposure at the level of netting set.

## FORMULA 23A

## CALCULATION OF DEFAULT RISK EXPOSURE AT NETTING SET LEVEL UNDER IMM(CCR) APPROACH

default risk exposure =  $\alpha$  x Effective EPE

where-

- (a)  $\alpha = 1.4$ ; and
- (b) Effective EPE = effective EPE calculated in accordance with section 226E or 226K, as the case requires.
- (2) Subject to subsection (3), the Monetary Authority may, by notice in writing given to an authorized institution, require the institution to use a higher  $\alpha$  in Formula 23A based on the risk profile of the institution's counterparty credit risk exposures.
- (3) Factors that the Monetary Authority may take into account for the purposes of deciding whether or not to give a notice under subsection (2) to an authorized institution include -
  - (a) the granularity of counterparties;
  - (b) the level of exposures to general wrong-way risk
    (being the risk that arises when the probability of default of counterparties is positively correlated with general market risk factors);
  - (c) the correlation of market values across counterparties; and
  - (d) other institution-specific characteristics of the institution's counterparty credit risk exposures.

## **226E.** Calculation of Effective EPE

An authorized institution must use Formula 23B to calculate the Effective EPE of a netting set.

#### FORMULA 23B

## CALCULATION OF EFFECTIVE EPE OF NETTING SET

Effective EPE = 
$$\sum_{k=1}^{\min(1 \text{ year, maturity})} \text{Effective EE}_{t_k} \times \Delta t_k$$

where-

(a) Effective  $EE_{t_k}$  = effective EE at time  $t_k$  calculated in accordance with section 226F;

- (b) Maturity = the time when the transaction which has the longest residual maturity in the netting set matures; and
- (c)  $\Delta t_k = t_k t_{k-1}$  is the time interval between  $t_k$  and  $t_{k-1}$  when effective EE is calculated at dates that are not equally spaced over time.

#### 226F. Calculation of Effective EE

An authorized institution must use Formula 23C to calculate the effective EE at time  $t_k$  in respect of a netting set.

## FORMULA 23C

# CALCULATION OF EFFECTIVE EE AT TIME $t_k$ IN RESPECT OF NETTING SET

Effective  $EE_{t_{k}} = max(Effective EE_{t_{k-1}}, EE_{t_{k}})$ 

where-

- (a)  $EE_{t_k} = EE$  at time  $t_k$  calculated in accordance with section 226G;
- (b) the current date is denoted as  $t_0$ ; and
- (c) Effective  $EE_{t_0}$  equals current exposure.

#### **226G.** Calculation of EE

- (1) An authorized institution must calculate the EE of a netting set at any particular future date (being a date before the transaction that has the longest residual maturity in the netting set matures) as the average of the distribution of exposures at that particular future date.
- (2) An authorized institution must estimate the distribution of exposures at any particular future date by-
  - (a) estimating the probability distribution of the net market values of the transactions within the netting set at that future date, given the realized market value of those transactions up to the present time; and

- (b) setting all negative net market values obtained in the estimation mentioned in paragraph (a) to zero.
- (3) Subject to subsection (4), an authorized institution may, when estimating the distribution of exposures, include any collateral-
  - (a) that falls within any description in section 80(1)(a),(b), (c) or (d); and
  - (b) that satisfies the requirements under section 77(a), (b), (c), (d), (e), (ea) and (f),

except collateral in the form of debt securities which, if being treated as an on-balance sheet exposure of the institution, would fall within the definition of *resecuritization exposure* in section 227(1).

(4) Subsection (3) does not apply in the case of an authorized institution which has an IMM(CCR) approval that prohibits the institution from using that subsection.

## 226H. Treatments for certain credit derivative contracts

An authorized institution must treat the default risk exposure in respect of a credit derivative contract as zero if-

- (a) the contract is a credit default swap in which the institution is the protection seller and a regulatory capital calculated in accordance with Part 4, 5 or 6, as the case may be, has been provided for the institution's exposure to the credit risk of the reference obligation underlying the swap; or
- (b) the institution is the protection buyer in the contract and the credit risk mitigation effect of the contract has been recognized and taken into account in accordance with Divisions 9 and 10 of Part 4, Divisions 7 and 8 of Part 5, Division 10 of Part 6, or Division 3, 5 or 6 of Part 7, for the purposes of the calculation of the risk-weighted amount of the exposure to which credit protection is provided by the contract.

#### 226I. Treatments for transactions with specific wrong-way risk

- (1) Where in respect of an authorized institution's transaction with a counterparty there is-
  - (a) a legal connection between the counterparty and the issuer of the assets underlying the transaction (or, where the transaction is a credit derivative contract, the reference entity specified in that contract); and
  - (b) specific wrong-way risk,

the institution must treat the transaction as a separate netting set from [the] *OR* [its] other netting sets with the counterparty.

- (2) For the purposes of subsection (1), a legal connection is considered to exist if the counterparty and the issuer (or the reference entity in the case of a credit derivative contract)-
  - (a) would constitute a single risk because one of them, directly or indirectly, has control over the other; or
  - (b) would be regarded as constituting a single risk because they are so interconnected that, if one of them were to experience financial problems, in particular funding or repayment difficulties, the other would be likely to encounter funding or repayment difficulties.
- (3) An authorized institution must, if a single-name credit default swap falls within subsection (1), set the default risk exposure to the counterparty in respect of that swap as equal to the full expected loss in the remaining fair value of the reference obligations specified in that swap (being the amount determined after recognizing any market value that has already been lost and any expected recoveries, assuming the reference entity concerned is in liquidation).
- (4) An authorized institution must, if-
  - (a) a transaction is referenced to a single issuer;
  - (b) the transaction is not a single-name credit default swap; and
  - (c) the transaction falls within subsection (1),

set default risk exposure to the counterparty in respect of that transaction as equal to the value of the transaction estimated under the assumption of a jump-to-default of the asset underlying the transaction.

## 226J. Treatments of margin agreements

- (1) An authorized institution must, for a netting set which is subject to a margin agreement, determine the effective EPE in respect of the netting set by-
  - (a) using the effective EE calculated from Formula 23C without taking into account the margin agreement;
  - (b) if the netting set is subject to daily remargining and daily mark-to-market, using the shortcut method set out in section 226K; or
  - subject to subsections (2) and (3), if the internal model used by the institution captures the effects of margin agreements when estimating EE, using the EE generated by the model directly in Formula 23C.
- (2) Paragraph (c) of subsection (1) does not apply in the case of an authorized institution [which] has an IMM(CCR) approval that prohibits the institution from using that paragraph.
- (3) An authorized institution must not, for the purposes of subsection (1)(c), recognize, in its default risk exposure calculations for OTC derivative transactions, credit derivative contracts and SFTs, the effect of collateral that is not cash of the same currency as the default risk exposure unless-
  - (a) the institution models collateral jointly with the exposure in the calculations; or
  - (b) if the institution is not able to meet the requirement in paragraph (a), it applies standard supervisory haircuts (within the meaning of section 51(1)) to the collateral.
- (4) An authorized institution must not capture the effect of a reduction of default risk exposure due to any clauses of a

collateral agreement that require receipt of collateral when the credit quality of the counterparty concerned deteriorates.

## 226K. Shortcut method

- (1) Under the shortcut method, the effective EPE to a counterparty with a margin agreement equals to the lesser of-
  - (a) the effective EPE calculated without taking into account any collateral held by or posted to the authorized institution under the margin agreement, plus any collateral that has been posted to the counterparty as an independent amount or initial margin; or
  - (b) an add-on calculated in accordance with subsection(2), plus the larger of-
    - (i) the current exposure, net of all collateral currently held by or posted to the authorized institution but excluding any collateral called or in dispute; or
    - (ii) the largest net exposure, including all collateral held by or posted to the authorized institution under the margin agreement, that would not trigger a collateral call, being an amount that must reflect all applicable thresholds, minimum transfer amounts, independent amounts and initial margins under the margin agreement.
- (2) An authorized institution must use Formula 23D to calculate the add-on mentioned in subsection (1)(b).

#### FORMULA 23D

## CALCULATION OF ADD-ON

# $E[\max(\Delta MtM, 0)]$

#### where-

(a) E[..] is the expectation (being the average over scenarios); and

- (b)  $\Delta MtM$  is the possible change of the mark-to-market value of the transactions in the netting set during the margin period of risk but-
  - (i) changes in the value of collateral need to be reflected using the applicable standard supervisory haircuts (within the meaning of section 51(1)) with no collateral payments assumed during the margin period of risk; and
  - (ii) the margin period of risk must be subject to adjustment as set out in section 226L.

## 226L. Margin period of risk

- (1) Subject to subsections (2), (3) and (5), if the transactions in a netting set are subject to-
  - (a) daily remargining; and
  - (b) daily mark-to-market,

an authorized institution must [subject] the margin period of risk of the netting set used for modelling default risk exposure with margin agreements to the following supervisory floors-

- (c) 5 business days if the netting set consists of repostyle transactions only; and
- (d) 10 business days in [all other cases] <u>OR</u> [any other case].
- (2) An authorized institution must, if a netting set contains more than 5,000 transactions at any point in time during a quarter, impose a supervisory floor of 20 business days on the margin period of risk for that netting set for the following quarter.
- (3) An authorized institution must, if a netting set contains at least one transaction-
  - (a) that involves illiquid collateral, or
(b) that is an OTC derivative transaction or a credit derivative contract that cannot be easily replaced,

impose a supervisory floor of 20 business days on the margin period of risk for that netting set.

- (4) For the purposes of subsection (3)-
  - (a) an authorized institution must determine whether or not collateral is illiquid collateral and whether or not an OTC derivative transaction or a credit derivative contract is one that cannot be easily replaced-
    - (i) on the assumption of stressed market conditions; and
    - (ii) taking into consideration whether, for the collateral, transaction or contract concerned, there are continuously active markets where a counterparty would, within 2 or fewer business days, obtain multiple price quotations that would not move the market or represent a price reflecting a market discount (in the case of collateral) or premium (in the case of an OTC derivative transaction or credit derivative contract);
  - (b) a transaction is deemed illiquid or not capable of being easily replaced if-
    - (i) the transaction is not marked-to-market daily; or
    - (ii) the fair value of the transaction, or the fair value of the asset underlying the transaction, is determined by models using inputs that are not observable in the market; and
  - (c) an authorized institution must consider whether the transactions undertaken by it or the assets it holds as collateral are concentrated in a particular counterparty, and if that counterparty exited the market precipitously, whether the institution would be able to replace those transactions or assets, as the case may be.

- (5) An authorized institution must, if it has experienced more than 2 margin call disputes over a particular netting set during the previous 2 quarters and the disputes have lasted longer than the margin period of risk applicable to that netting set under subsection (1), (2) or (3), as the case requires, use a margin period of risk that is at least double the supervisory floor applicable to that netting set under that subsection for the subsequent 2 quarters.
- (6) An authorized institution must, for a netting set that is not subject to daily remargining, set the margin period of risk at not less than the margin period of risk calculated by using Formula 23E.

#### FORMULA 23E

# CALCULATION OF MARGIN PERIOD OF RISK FOR NETTING SET NOT SUBJECT TO DAILY REMARGINING

Margin period of risk = F+N-1

where-

(a)	F	=	the supervisory floor specified in subsection (1), (2) or (3), as the case requires, that is applicable to the netting set; and	
(b)	Ν	=	the actual number of days between	

# each remargining of the netting set.

#### **Division 3 - Calculation of CVA Capital Charge**

#### 226M. Advanced CVA method

- Unless the context otherwise requires, a reference to an authorized institution in this section and section 226N(1) to (4) is a reference to an authorized institution that is eligible to use the advanced CVA method.
- (2) An authorized institution must calculate its CVA capital charge-

- (a) by using the VaR model approved [in writing] by the Monetary Authority for calculating the specific risk for interest rate exposures under the IMM approach; and
- (b) in accordance with this section and section 226N(1) to (4).
- (3) An authorized institution must use the VaR model in such a way that-
  - (a) it models the impact of changes in the credit spreads of counterparties on the CVAs for the counterparties; and
  - (b) does not model the sensitivity of the CVAs to changes in other market factors (including the value of the asset, commodity, exchange rate or interest rate to which a derivative contract is referenced).
- (4) An authorized institution may reduce its CVA capital charge by taking into account the effect of any eligible CVA hedges.
- (5) An authorized institution must, to avoid double counting, ensure that the EEs that are used as inputs in Formula 23F, 23G, 23H or 23I [set out in this Part] have not been adjusted for any CVA risk-mitigating effect of any eligible CVA hedges that the institution intends to use to reduce its CVA capital charge.
- (6) An authorized institution must generate all the inputs used in its approved VaR model mentioned in subsection (2)(a) based on Formula 23F.

#### FORMULA 23F

# INPUTS TO BE USED IN APPROVED VAR MODEL MENTIONED IN SECTION 226M(2)

$$CVA = \left(LGD_{MKT}\right) \cdot \sum_{i=1}^{T} Max \left(0; \exp\left(-\frac{s_{i-1} \cdot t_{i-1}}{LGD_{MKT}}\right) - \exp\left(-\frac{s_{i} \cdot t_{i}}{LGD_{MKT}}\right)\right) \cdot \left(\frac{EE_{i-1} \cdot D_{i-1} + EE_{i} \cdot D_{i}}{2}\right)$$

where-

(a) CVA is the CVA for a particular counterparty;

- (b)  $t_i$  is the time of the i-th revaluation, starting from  $t_0 = 0$ ;
- (c)  $t_T$  is the longest contractual residual maturity across the netting sets with the counterparty;
- $\begin{array}{ll} (d) & s_i \mbox{ is the credit spread of the counterparty at time } t_i \\ & but- \end{array}$ 
  - (i) the credit default swap (CDS) spread of the counterparty must be used whenever such a spread is available; and
  - (ii) if the CDS spread is not available, a proxy spread must be used that is appropriate to the counterparty having regard to the credit rating, industry and geographical location of the counterparty;
- (e)  $LGD_{MKT}$  is the loss given default of the counterparty determined based on the spread of a market instrument of the counterparty but, if a market instrument of the counterparty is not available, a proxy spread must be used that is appropriate to the counterparty having regard to the credit rating, industry and geographical location of the counterparty;
- (f) EE<sub>i</sub> is the EE to the counterparty at time t<sub>i</sub>, which is the sum of the individual EEs of all the netting sets with the counterparty; and
- (g)  $D_i$  is the default risk-free discount factor at time  $t_i$ , where  $D_0 = 1$ .
- (7) An authorized institution using the IRB approach must not use the LGD estimated for a counterparty under the IRB approach as the LGD<sub>MKT</sub> for that counterparty.
- (8) Where an authorized institution's approved VaR model mentioned in subsection (2)(a) is based on full re-pricing, the institution must use Formula 23F to calculate the CVA.
- (9) Where an authorized institution's approved VaR model mentioned in subsection (2)(a) is based on credit spread sensitivities for specific tenors, the institution must generate each credit spread sensitivity based on Formula 23G for i < T and on Formula 23H for i = T.</p>

#### FORMULA 23G

# CALCULATION OF CREDIT SPREAD SENSITIVITY FOR SPECIFIC TENORS FOR: [i < T]

 $\text{Regulatory CSO1}_{i} = 0.0001 \cdot t_{i} \cdot \exp\left(-\frac{s_{i} \cdot t_{i}}{LGD_{MKT}}\right) \cdot \left(\frac{EE_{i-1} \cdot D_{i-1} - EE_{i+1} \cdot D_{i+1}}{2}\right)$ 

where-

- (a) Regulatory  $CS01_i$  = regulatory sensitivity of CVA to 1 basis point change in credit spread at time  $t_i$ ; and
- [(b) other components have the meanings as defined in Formula 23F].

#### FORMULA 23H

# CALCULATION OF CREDIT SPREAD SENSITIVITY FOR SPECIFIC TENORS FOR: i = T

$$\text{Regulatory CSO1}_{\text{T}} = 0.0001 \cdot t_{\text{T}} \cdot \exp\left(-\frac{s_{\text{T}} \cdot t_{\text{T}}}{LGD_{MKT}}\right) \cdot \left(\frac{EE_{\text{T-1}} \cdot D_{\text{T-1}} + EE_{\text{T}} \cdot D_{\text{T}}}{2}\right)$$

(10) Where an authorized institution's approved VaR model mentioned in subsection (2)(a) is based on credit spread sensitivities to parallel shifts in credit spreads, the institution must generate the credit spread sensitivity based on Formula 23I.

#### FORMULA 23I

# CALCULATION OF CREDIT SPREAD SENSITIVITY TO PARALLEL SHIFTS

$$\text{Regulatory } \text{CS01} = 0.0001 \cdot \sum_{i=1}^{T} \left( t_i \cdot \exp\left(-\frac{s_i \cdot t_i}{LGD_{MKT}}\right) - t_{i-1} \cdot \exp\left(-\frac{s_{i-1} \cdot t_{i-1}}{LGD_{MKT}}\right) \right) \cdot \left(\frac{EE_{i-1} \cdot D_{i-1} + EE_i \cdot D_i}{2}\right)$$

- (11) Where an authorized institution's approved VaR model mentioned in subsection (2)(a) is based on second-order sensitivities to shifts in credit spreads (spread gammas), the institution must calculate the spread gammas based on Formula 23F.
- (12) An authorized institution using the shortcut method set out in section 226K must calculate the CVA capital charge for a counterparty by-

- (a) using Formula 23F; and
- (b) applying to Formula 23F a constant EE profile with EE set equal to the effective EPE determined under the shortcut method for a maturity equal to the greater of-
  - (i) half of the longest residual maturity occurring in the netting set concerned; or
  - (ii) the weighted average residual maturity of all transactions in the netting set (using the notional amount of each transaction for weighting the maturity).
- (13) An authorized institution must include transactions which it is permitted, under section 10B(5) or (6), to use the current exposure method in its CVA capital charge calculation under the advanced CVA method by assuming a constant EE profile with EE set equal to the default risk exposure as calculated under the current exposure method for a residual maturity equal to the greater of-
  - (a) half of the longest residual maturity occurring in the netting set concerned; or
  - (b) the weighted average residual maturity of all transactions in the netting set (using the notional amount of each transaction for weighting the maturity).
- (14) An authorized institution must include transactions for which the internal model used by it does not produce an EE profile in its CVA capital charge calculation under the advanced CVA method in accordance with the method set out in subsection (13).

# 226N. Specific requirements relating to VaR under advanced CVA method

- (1) An authorized institution using the advanced CVA method to calculate the CVA capital charge must-
  - (a) ensure that the CVA capital charge covers general and specific credit spread risks and, if the institution has the Monetary Authority's approval to calculate

incremental risk charge for transactions that are subject to CVA capital charge, excludes incremental risk charge;

- (b) determine the CVA capital charge as the sum of a VaR and a stressed VaR generated by the model mentioned in section 226M(2)(a) used by the institution; and
- (c) determine the VaR and the stressed VaR mentioned in paragraph (b) in accordance with the quantitative standards set out in subsections (2) and (3) and section 1(n) of Schedule 3.
- (2) An authorized institution must-
  - (a) calculate the VaR based on EEs that are estimated using parameters calibrated to current market data; and
  - (b) determine the VaR as the [higher] <u>OR</u> [greater] of-
    - (i) the institution's VaR as at the last trading day; or
    - (ii) the average VaR for the last 60 trading days multiplied by a multiplication factor determined in the same manner as [specified] in section 319(1).
- (3) Subject to subsection (4), an authorized institution must-
  - (a) calculate the stressed VaR based on EEs that are estimated using a stress calibration as set out in section 3(f)(i) of Schedule 3A; and
  - (b) determine the stressed VaR as the [higher] of-
    - (i) the institution's latest available stressed VaR; or
    - (ii) the average stressed VaR for the last 60 trading days multiplied by a multiplication factor determined in the same manner as [specified] in section 319(4).

(4) For the purposes of subsection (3), the period of stress must be the most severe 1-year stress period within the 3 year period used for the stress calibration.

#### 226O. Standardized CVA method

(1) An authorized institution must, under the standardized CVA method, use Formula 23J to calculate the CVA capital charge for a portfolio of counterparties.

### FORMULA 23J

# CALCULATION OF CVA CAPITAL CHARGE UNDER STANDARDIZED CVA METHOD

$$K = 2.33 \cdot \sqrt{h} \cdot \sqrt{\left(\sum_{i} 0.5 \cdot w_{i} \cdot \left(M_{i} \cdot EAD_{i}^{total} - M_{i}^{hedge}B_{i}\right) - \sum_{ind} w_{ind} \cdot M_{ind} \cdot B_{ind}}\right)^{2} + \sum_{i} 0.75 \cdot w_{i}^{2} \cdot \left(M_{i} \cdot EAD_{i}^{total} - M_{i}^{hedge}B_{i}\right)^{2}}$$

where-

- (a) h is the 1-year risk horizon (in units of a year) and h
  = 1;
- (b)  $w_i$  is the weight applicable to counterparty "i", which is determined by mapping the ECAI issuer rating of the counterparty to one of the 7 weights in Table 23A or Table 23B, whichever is applicable, but, if a counterparty does not have an ECAI issuer rating-
  - the authorized institution may, if it uses the IRB approach to calculate its credit risk for non-securitization exposures and with the prior consent of the Monetary Authority, map the internal rating of the counterparty to one of the ECAI issuer ratings in Table 23A in order to determine the weight applicable to the counterparty;
  - (ii) in any other case, the authorized institution must assign a weight of 1% to the counterparty;
- (c)  $EAD_i^{total}$  is the default risk exposure of a netting set

with counterparty "i" with the effect of collateral taken into account in such a manner as permitted under the IMM(CCR) approach or the current exposure method, as the case may be, but, for the purposes of calculating  $EAD_i^{total}$  -

- (i) subject to subparagraph (ii), if an authorized institution does not have an IMM(CCR) approval for using the IMM(CCR) approach to calculate the default risk exposure of the netting set, the institution must discount the default risk exposure of that netting set by a factor which is equal to  $(1-\exp(-0.05M_i))/(0.05M_i)$ ;
- (ii) if the default risk exposure of the netting set is calculated by using the IMM(CCR) approach, the discount referred to in subparagraph (i) is not required;
- (d) B<sub>i</sub> is the notional amount of a single-name credit default swap, with counterparty "i" as the reference entity, purchased for hedging CVA risk but this notional amount must be discounted by a factor which is equal to  $(1 \exp(-0.05M_i^{hedge}))/(0.05M_i^{hedge});$
- (e) B<sub>ind</sub> is the notional amount of an index credit default swap on index "ind" purchased for hedging CVA risk but-
  - (i) the authorized institution must discount the notional amount by a factor of  $(1-\exp(-0.05M_{ind}))/(0.05M_{ind})$ ;
  - (ii) if counterparty "i" is a constituent of index "ind", the notional amount attributable to that counterparty (based on its weight in the index credit default swap concerned) may, with the approval in writing of the Monetary Authority, be subtracted by the authorized institution from the notional amount of the swap and be treated by the institution as a single-name credit default swap on that counterparty (that is, may be included in the calculation of  $B_i$ ) with maturity based on the

maturity of index "ind";

- (f)  $w_{ind}$  is the weight applicable to the index credit default swap mentioned in paragraph (e), which is determined by mapping index "ind" to one of the 7 weights shown in Table 23A based on the average spread of index "ind";
- (g) M<sub>i</sub> is the effective maturity of a netting set with counterparty "i" but-
  - (i) if the authorized institution has an IMM(CCR) approval for using the IMM(CCR) approach to calculate the default risk exposure of the netting set, it must calculate  $M_i$  as the greater of 1 year or the M calculated in accordance with section 168(1)(ba);
  - (ii) if the authorized institution does not have an IMM(CCR) approval for using the IMM(CCR) approach to calculate the default risk exposure of the netting set, it must calculate  $M_i$  as the greater of 1 year or the M calculated in accordance with section 168(1)(bb); and
  - (iii) the authorized institution must not cap M<sub>i</sub> at 5 years for the purposes of calculating the CVA capital charge;
- (h)  $M_i^{hedge}$  is the maturity of the credit default swap mentioned in paragraph (d); and
- (i) M<sub>ind</sub> is the maturity of the credit default swap mentioned in paragraph (e).
- (2) An authorized institution must, if there is more than one netting set with counterparty "i", construe the [expression] <u>OR</u> [notation]  $M_i \cdot EAD_i^{total}$  in Formula 23J as the sum of the quantities  $M_i \cdot EAD_i^{total}$  calculated for the netting sets.
- (3) An authorized institution must, if there is more than one single-name credit default swap purchased for hedging the CVA risk in respect of counterparty "i", construe the [expression]  $M_i^{hedge} \cdot B_i$  in Formula 23J as the sum of the

quantities  $M_i^{hedge} \cdot B_i$  calculated for the swaps.

- (4) An authorized institution must, if there is more than one index credit default swap purchased for hedging CVA risk, construe the [expression]  $M_{ind} \cdot B_{ind}$  in Formula 23J as the sum of the quantities  $M_{ind} \cdot B_{ind}$  calculated for the swaps.
- (5) An authorized institution-
  - (a) subject to paragraph (b), must not include a CVA hedge in its use of Formula 23J unless it is an eligible CVA hedge; and
  - (b) must, to avoid double counting in  $EAD_i^{total}$  in that formula, ensure that  $EAD_i^{total}$  has not been adjusted for any CVA risk-mitigating effect of any eligible CVA hedges that the institution intends to use to reduce its CVA capital charge.

## TABLE 23A

Standard &	Moody's	Fitch	Rating and	Janan Credit	Weight
Poor's	Investors	Ratings	Investment	Rating	weight
Ratings	Service	Ratings	Information	Agency I td	
Sorvices	Service		Information,	Agency, Ltu.	
Services			IIIC.		
AAA	Aaa	AAA	AAA	AAA	0.7%
AA+	Aa1	AA+	AA+	AA+	0.7%
AA	Aa2	AA	AA	AA	
AA-	Aa3	AA-	AA-	AA-	
A+	A1	A+	A+	A+	0.8%
Α	A2	А	А	А	
A-	A3	A-	A-	A-	
BBB+	Baa1	BBB+	BBB+	BBB+	1.0%
BBB	Baa2	BBB	BBB	BBB	
BBB-	Baa3	BBB-	BBB-	BBB-	
BB+	Ba1	BB+	BB+	BB+	2.0%
BB	Ba2	BB	BB	BB	
BB-	Ba3	BB-	BB-	BB-	
B+	B1	B+	B+	B+	3.0%
В	B2	В	В	В	
B-	B3	B-	B-	B-	
CCC+	Caa1	CCC	CCC+		10.0%
CCC	Caa2		CCC	CCC	
CCC-	Caa3		CCC-		

## RATINGS APPLICABLE TO ALL COUNTERPARTIES

# TABLE 23B RATINGS APPLICABLE TO COUNTERPARTIES THAT ARE CORPORATES INCORPORATED IN INDIA

Credit Analysis and Research Limited	CRISIL Limited	ICRA Limited	Weight
CARE AAA (Is)	CRISIL AAA	IrAAA	0.7%
CARE AA+ (Is)	CRISIL AA+	IrAA+	0.8%
CARE AA (Is)	CRISIL AA	IrAA	
CARE AA- (Is)	CRISIL AA-	IrAA-	
CARE A+ (Is)	CRISIL A+	IrA+	0.8%
CARE A (Is)	CRISIL A	IrA	
CARE A- (Is)	CRISIL A-	IrA-	
CARE BBB+ (Is)	CRISIL BBB+	IrBBB+	1.0%
CARE BBB (Is)	CRISIL BBB	IrBBB	
CARE BBB- (Is)	CRISIL BBB-	IrBBB-	
CARE BB+ (Is)	CRISIL BB+	IrBB+	2.0%
CARE BB (Is)	CRISIL BB	IrBB	
CARE BB- (Is)	CRISIL BB-	IrBB-	
CARE B+ (Is)	CRISIL B+	IrB+	3.0%
CARE B (Is)	CRISIL B	IrB	
CARE B- (Is)	CRISIL B-	IrB-	
CARE C+ (Is)	CRISIL C+	IrC+	10.0%
CARE C (Is)	CRISIL C	IrC	
CARE C- (Is)	CRISIL C-	IrC-	

# 226P. Eligible CVA hedges

- (1) An authorized institution, when calculating a CVA capital charge, may take hedges into account only if-
  - (a) they are used and managed for the purpose of mitigating CVA risk;
  - (b) they are entered into with external counterparties;
  - (c) subject to paragraph (d), the hedging instruments used in the hedges are-
    - (i) single-name credit default swaps;
    - (ii) single-name contingent credit default swaps;

- (iii) hedging instruments similar to the hedging instruments mentioned in subparagraph (i) or (ii) and referencing the counterparty concerned directly; or
- (iv) subject to paragraph (d) and subsection (2), index credit default swaps;
- (d) they are not-
  - (i) tranched or nth-to-default credit default swaps;
  - (ii) credit-linked notes; or
  - (iii) first loss protection; and
- (e) the payment under the hedging instruments does not depend on cross-default.
- (2) Where an authorized institution uses the advanced CVA method to calculate CVA capital charge, the institution may, subject to subsection (3), include index credit default swaps as eligible CVA hedges in the calculation only if-
  - (a) the basis (being the difference between the spread of any individual counterparty (or, subject to paragraph (b), the proxy spread when the spread is not available) and the spreads of the index credit default swaps) is reflected in the VaR generated by the VaR model concerned;
  - (b) in any case where the counterparty has no available spread, the institution uses a reasonable basis time series out of a representative group of similar names for which a spread is available.
- (3) Where the Monetary Authority is not satisfied that the basis referred to in subsection (2) is sufficiently reflected in an authorized institution's VaR, the Monetary Authority may give the institution a notice in writing requiring the institution to reflect, in its VaR, 50% of the notional amount of the index credit default swap hedge concerned.
- (4) An authorized institution must comply with the requirements of a notice given to it under subsection (3).

- (5) An authorized institution must, if the hedging instrument in an eligible CVA hedge is a credit default swap and restructuring is not one of the credit events specified in the swap, take into account the CVA risk mitigation effect of the swap in its CVA capital charge calculation-
  - (a) if the institution calculates CVA capital charge using the advanced CVA method, in the same manner as that under the IMM approach;
  - (b) if the institution calculates CVA capital charge using the standardized CVA method, in the same manner as that under the STM approach;
- (6) Where an authorized institution has included eligible CVA hedges in a CVA capital charge calculation, the institution-
  - (a) must exclude the hedges from its market risk capital charge calculation; and
  - (b) must not treat the hedges as recognized credit derivative contracts other than for CVA risk.".

#### 83. Part 6A, Division 4 added

Part 6A, after section 226O-

Add

# "Division 4 - Exposures to CCPs<sup>6</sup>

#### 226Q. Application of Division 4

- (1) Unless otherwise stated, the requirements set out in this Division apply to all locally incorporated authorized institutions, regardless of the approach adopted by the institutions for calculating their credit risk for non-securitization exposures.
- (2) To avoid doubt, exposures to CCPs arising from delayed or failed settlement of-
  - (a) cash transactions in securities (other than repo-style transactions), foreign exchange or commodities; and
  - (b) cash-settled derivative contracts,

are not subject to the requirements of this Division but are subject to the capital treatment set out in Part 4, 5 or 6, as the case requires, for transactions settled on a deliveryversus-payment basis or a basis other than the deliveryversus-payment basis.

#### 226R. Interpretation - Division 4

(1) In this Division-

*initial margin* ( ), in relation to the calculation of regulatory capital for exposures to CCPs and clearing members-

(a) subject to paragraph (b), means a clearing member's or a client's funded collateral posted to a CCP to mitigate the potential future exposure of the CCP to the clearing

<sup>&</sup>lt;sup>6</sup> The requirements in this Division are subject to the finalised CCP proposals to be issued by the Basel Committee.

member arising from the possible future change in the value of the clearing member's transactions or the client's transactions, as the case may be; and

- (b) does not include-
  - (i) any default fund contributions made by the clearing member; and
  - (ii) any funded collateral posted by the clearing member or client that can be used by the CCP to mutualize losses among clearing members;

*non-qualifying central counterparty* ( ) means a CCP that is not a qualifying CCP;

*offsetting transaction* ( ), in relation to a clearing member of a CCP and a client of the clearing member, means a transaction between the clearing member and the CCP which is for the purpose of offsetting a transaction between the clearing member and the client when the clearing member acts on behalf of the client as an intermediary between the client and the CCP;

#### qualifying central counterparty ( CCP-

) means a

- (a) that has been licensed by a [CCP regulator] to operate as a CCP and, with respect to products offered by the CCP, is permitted by the CCP regulator to operate as such;
- (b) that is based and prudentially supervised in a jurisdiction where the CCP regulator substantially enforces on a continuous basis the "Principles for Financial Market Infrastructures" issued by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, as in force from time to time; and
- [(c) which has made available or calculated the parameters that are necessary for a clearing member to calculate the [regulatory capital]

for its default fund contribution to the CCP in accordance with the methodology and requirements set out in [paragraphs 116 and 117] of Annex 4 (as amended by the document entitled "Capitalisation of Bank Exposures to Central Counterparties" issued by the Basel Committee in [] 2012) to the document entitled "International Convergence of Capital Measurement and Capital Standards – A Revised Framework (Comprehensive Version)" published by the Basel Committee in June 2006;]

- *variation margin* ( ) means a clearing member's or client's funded collateral posted on a daily or intraday basis to a CCP based on price movements of the clearing member's transactions or client's transactions, as the case may be.
- (2) For the purposes of this Division-
  - (a) an authorized institution's default risk exposure to a CCP includes any initial margin or variation margin that is payable by the CCP to the institution;
  - (b) any reference to bilateral master agreement in section 226A(2) must be construed to mean a netting agreement employed by a CCP that provides legally enforceable rights of set-off; and
  - (c) the references to agreement in the definition of *valid bilateral netting agreement* in section 2(1) must be construed to mean a netting agreement employed by a CCP that provides legally enforceable rights of set-off.

# 226S. Calculation of default risk exposures

- (1) An authorized institution must calculate its default risk exposure to a CCP, a clearing member or a client in respect of OTC derivative transactions, credit derivative contracts and SFTs using the same methodology as it would be required to use if the transactions or contracts-
  - (a) were not cleared by CCPs, or

- (b) were not CCP-related transactions.
- (2) Where an authorized institution's transaction with a CCP is a derivative contract traded on an exchange, the institution must calculate its default risk exposure in respect of the contract using the same methodology as it would be required to use if the contract were an OTC derivative transaction or a credit derivative contract, as the case requires.
- (3) An authorized institution may treat the default risk exposure to a CCP, in respect of payment transactions or spot transactions, as zero if the CCP's default risk exposures to all clearing members are fully collateralized on a daily basis.
- (4) For the purposes of subsections (1) and (2), if a netting set with a qualifying CCP falls within the description in section 226L(2) and an authorized institution uses the IMM(CCR) approach or any of the methods under sections 76A(3) to (6), 96, 97, 123A(3) to (6), 202(2) and 209(3) to calculate the default risk exposure in respect of the netting set, the higher supervisory floor of 20 business days required under section 226L(2) does not apply to the calculation of the default risk exposure if, and only if, the netting set
  - (a) does not contain illiquid collateral or exotic transactions; and
  - (b) does not contain any disputed transactions.

#### 226T. Exposures of clearing members to qualifying CCPs

- (1) An authorized institution that is a clearing member of a qualifying CCP must calculate the risk-weighted amount of its-
  - (a) default risk exposure to the CCP; and
  - (b) off-balance sheet exposure to the CCP arising from guarantees provided by the institution to its clients for any loss due to changes in the value of the clients' transactions in the event that the CCP defaults,

by allocating a risk-weight of 2% to the exposures.

- (2) Subject to subsection (3), for the purposes of subsection (1), an authorized institution may calculate the risk-weighted amount taking into account any credit risk mitigation techniques (including recognized netting and margining) that are recognized under these Rules in the same manner as allowed for the calculation of the risk-weighted amount of its default risk exposures in respect of bilateral transactions.
- (3) An authorized institution must not under subsection (2) take into account the effect of any credit risk mitigation techniques applicable to an exposure [of the institution] if that effect has already been taken into account in the calculation of the default risk exposures in respect of the transactions or contracts concerned.
- (4) An authorized institution is not required to hold regulatory capital for CVA risk in respect of transactions with a qualifying CCP.
- (5) Subject to subsection (9), an authorized institution that is a clearing member of a qualifying CCP must use Formula 23K to calculate the regulatory capital for its default fund contribution (K<sub>AI</sub>) to the CCP.

#### FORMULA 23K

# CALCULATION OF REGULATORY CAPITAL FOR DEFAULT FUND CONTRIBUTION BY AUTHORIZED INSTITUTION THAT IS CLEARING MEMBER OF QUALIFYING CCP

$$K_{AI} = \left(1 + \beta \cdot \frac{N}{N-2}\right) \cdot \frac{DF_{AI}}{DF_{CM}} \cdot K_{CM}^*$$

where-

(a) 
$$\beta = \frac{A_{Net,1} + A_{Net,2}}{\sum_{i} A_{Net,i}}$$
 where subscripts 1 and 2 denote  
the clearing members with the 2 largest AND

the clearing members with the 2 largest  $A_{Net}$ 

values and subscript i denotes clearing member "i" but-

- (i) for derivative contracts,  $A_{Net}$  is an amount calculated by using the same formula as Formula 8 in section 95 as if the CCP were an authorized institution;
- (ii) for SFTs,  $A_{\text{Net}}$  is an amount calculated as  $E \cdot H_e + C \cdot (H_c + H_{fx})$  where-
  - (A) E is the amount of the CCP's exposure to the SFTs;
  - (B) C is the current market value of the collateral, which would fall within the definition of *recognized collateral* in section 51(1) if the CCP were an authorized institution, received by the CCP; and
  - (C)  $H_{e}$ ,  $H_{c}$  and  $H_{fx}$  are haircuts which would have the meanings given by Formula 2 in section 87 if the CCP were an authorized institution;
- (b) N = number of clearing members;
- (c)  $DF_{AI} =$  prefunded default fund contribution from the authorized institution;
- (d)  $DF_{CM}$ = total of prefunded default fund contributions from all clearing members; and
- (e)  $K_{CM}^* =$  aggregate capital requirement on default fund contributions from all clearing members prior to adjustments for granularity and concentration calculated in accordance with the methodology set out in [paragraph 116] of Annex 4 (as amended by the document entitled "Capitalisation of Bank Exposures to Central Counterparties" issued by the Basel Committee in [] 2012) to the document entitled "International Convergence of Capital Measurement and Capital Standards – A Revised Framework (Comprehensive Version)" published by the Basel Committee in June 2006.

- (6) An authorized institution must, if Formula 23K cannot work because the CCP does not have any prefunded default fund contributions, calculate  $K_{AI}$  by allocating  $K_{CM}^*$  based on its proportionate unfunded default fund commitment instead of based on  $\frac{DF_{AI}}{DF_{CM}}$ .
- (7) An authorized institution must, if the authorized institution's share of  $K_{CM}^*$  based on its proportionate unfunded default fund commitment is not determinable, allocate  $K_{CM}^*$  based on the size of the initial margin posted by it to the CCP.
- (8) An authorized institution must recalculate  $K_{AI}$  -
  - (a) at least on a quarterly basis; and
  - (b) whenever there are material changes to-
    - (i) the number or exposure of cleared transactions; or
    - (ii) the financial resources of the CCP.
- (9) The Monetary Authority may, if a CCP's mutualized loss sharing arrangements would not allocate losses to its clearing members proportionate to their prefunded default fund contributions, and after consultation with the authorized institution concerned, by notice in writing given to the institution require it to make adjustments specified in the notice to the allocation methodology set out in subsection (5), (6) or (7), as the case may be, in order to reflect the loss allocation basis under the mutualized loss sharing arrangements.
- (10) An authorized institution must comply with the requirements of a notice given to it under subsection (9).
- (11) For the purposes of the calculation of regulatory capital, an authorized institution must, if it fails <u>OR</u> [has failed] to obtain necessary data to calculate its  $K_{AI}$  for a qualifying CCP, treat its default fund contribution to the CCP as default fund contribution to a non-qualifying CCP.
- (12) An authorized institution must calculate the risk-weighted amount of its default fund contribution as the product of  $K_{AI}$  and 12.5.

#### 226U. Exposures of clearing members to clients

- (1) An authorized institution that is a clearing member of a CCP must calculate the risk-weighted amount of its default risk exposure and CVA risk-weighted amount in respect of its clients arising from CCP-related transactions and the risk-weighted amount of its off-balance sheet exposures arising from guarantees of clients' performance in accordance with Division 3 of Part 6A and Part 4, 5 or 6, as the case requires, as if the transactions cleared by the CCP were bilateral transactions between the institution and the clients, regardless of whether the institution guarantees the performance of the clients or acts as an intermediary between the clients and the CCP.
- (2) Where an authorized institution-
  - (a) is a clearing member of CCP; and
  - (b) has entered into a transaction, being the CCPrelated transactions for a derivative contract traded on an exchange, with its client under a bilateral agreement between the institution and its client,

the institution must calculate the risk-weighted amount of its default risk exposure and CVA risk-weighted amount in respect of the client arising from the derivative contract as if the derivative contract were an OTC derivative transaction.

#### 226V. Exposures of clients to clearing members

- (1) Where an authorized institution-
  - (a) is a client of a clearing member of a CCP; and
  - (b) enters into a CCP-related transaction (in this section referred to as the *relevant transaction*) with the clearing member that acts as a financial intermediary between the institution and the CCP,

the institution must, subject to subsections (3) and (4), calculate the risk-weighted amount of its default risk exposure and CVA risk-weighted amount in respect of the

clearing member arising from the relevant transaction in accordance with Division 3 of Part 6A and Part 4, 5 or 6, as the case requires.

- (2) Where an authorized institution-
  - (a) is a client of a clearing member of a CCP; and
  - (b) has entered into a transaction, being the CCPrelated transaction for a derivative contract traded on an exchange, with the clearing member under a bilateral agreement between the institution and the clearing member,

the institution must calculate the risk-weighted amount of its default risk exposure and CVA risk-weighted amount in respect of the clearing member arising from the derivative contract as if it were an OTC derivative transaction.

- (3) An authorized institution may, if the CCP is a qualifying CCP and all the conditions set out in subsection (5) are met, calculate the risk-weighted amount of its exposure to the clearing member arising from the relevant transaction in accordance with section 226T(1) to (4) as if its exposure were to the CCP.
- (4) An authorized institution may, if the CCP is a qualifying CCP and all the conditions set out in subsection (5) are met other than the condition set out in subsection (5)(a)(iii), calculate the risk-weighted amount of its exposure to the clearing member arising from the relevant transaction in accordance with section 226T(1) to (4) as if its exposure were to the CCP except that the applicable risk-weight must be 4% instead of 2%.
- (5) The conditions that must be met for the relevant transaction of an authorized institution to receive the treatment mentioned in subsection (3) are-
  - (a) the offsetting transaction for the relevant transaction is identified by the CCP as a client transaction and the collateral for supporting the offsetting transaction is held by the CCP or the clearing member, or both, as applicable, under arrangements that prevent any losses to the institution due to-
    - (i) the default or insolvency of the clearing member;

- (ii) the default or insolvency of the clearing member's other clients; and
- (iii) the joint default or joint insolvency of the clearing member and any of its other clients;
- (b) the institution has obtained independent, written and reasoned legal advice that concludes that, in the event of a legal challenge, the relevant court or administrative authority would find that the institution would bear no losses on account of the insolvency of the clearing member or of any other clients of the clearing member under-
  - the law of the jurisdictions in which the institution, the clearing member and the CCP are incorporated or the equivalent locations in the case of non-corporate entities, and if a branch of the institution, the clearing member or the CCP is involved, then also under the law of the jurisdiction in which the branch is located;
  - (ii) the law that governs the individual transactions and collateral; and
  - (iii) the law that governs any contract or agreement necessary to meet the condition [mentioned] in paragraph (a); and
- (c) relevant laws, regulations, rules, contractual or administrative arrangements provide that offsetting transactions with a clearing member are highly likely to continue to be indirectly transacted through the CCP, or by the CCP, if the clearing member defaults or becomes insolvent, and in such circumstances, the institution's positions and collateral with the CCP will be transferred at market value unless the institution requests to close out the positions at market value.

## 226W. Exposures of clients to qualifying CCPs

- (1) Where an authorized institution-
  - (a) is a client of a clearing member of a qualifying CCP;

- (b) enters into a transaction with the CCP; and
- (c) has its performance under the transaction mentioned in paragraph (b) guaranteed by the clearing member mentioned in paragraph (a),

the institution must, subject to subsection (2), calculate the risk-weighted amount of its default risk exposure and CVA risk-weighted amount in respect of the clearing member arising from the transaction in accordance with Division 3 of Part 6A and Part 4, 5 or 6, as the case requires.

(2) An authorized institution may calculate the risk-weighted amount of its exposure to the CCP arising from the transaction in accordance with section 226T(1) to (4) if all the conditions set out in section 226V(5) are met.

#### 226X. CCP ceases to be qualifying CCP

- (1) Where a CCP ceases to be a qualifying CCP-
  - (a) subject to subsection (2), an authorized institution may, for a period of not more than 3 months commencing on the cesser (*relevant period*) continue to calculate its default risk exposure in respect of transactions cleared by the CCP as if the CCP were a qualifying CCP; and
  - (b) the institution may, at any time before the expiration of the relevant period, and must, on and after the expiration of the relevant period, calculate its default risk exposures in respect of transactions cleared by the CCP as a non-qualifying CCP unless and until the CCP again becomes a qualifying CCP.
- (2) The Monetary Authority may, by notice in writing given to an authorized institution, require the institution to calculate its default risk exposure to a CCP that has ceased to be a qualifying CCP in accordance with the requirements applicable to a non-qualifying CCP from such date, or the occurrence of such event, as is specified in the notice.
- (3) An authorized institution given a notice under subsection (2) must comply with the requirements of the notice.

## 226Y. Exposures to non-qualifying CCPs

- (1) An authorized institution that is a clearing member of a non-qualifying CCP must calculate the risk-weighted amount of-
  - (a) its default risk exposure to the CCP; and
  - (b) its off-balance sheet exposure to the CCP arising from guarantees provided by the institution to its clients for any loss due to changes in the value of the clients' transactions in the event that the CCP defaults,

in accordance with Part 4.

- (2) An authorized institution must allocate a risk-weight of 1250% to its default fund contribution to a non-qualifying CCP and, for that purpose, the institution's default fund contribution must include the funded and unfunded contributions that the institution is liable to pay if the nonqualifying CCP requires the institution to do so.
- (3) An authorized institution is not required to hold regulatory capital for CVA risk in respect of transactions with a non-qualifying CCP.

#### 226Z. Treatment of posted collateral

- (1) Subject to subsections (2), (3) and (4), where an authorized institution has posted collateral with a CCP or a clearing member and the collateral is not held in a bankruptcy remote manner, the institution must, in respect of the collateral, calculate the risk-weighted amount of its credit exposure to the person holding the collateral by assigning a risk-weight applicable to that person in accordance with Part 4, 5 or 6, as the case requires.
- (2) Where an authorized institution is a clearing member and has posted collateral for transactions with a CCP, the institution is not required to, in respect of the collateral, hold regulatory capital for the credit exposure to the person holding the collateral if-

- (a) the collateral is held by a custodian; and
- (b) the collateral is bankruptcy remote from the CCP.
- (3) Where an authorized institution is a client and has posted collateral for transactions with a CCP, the institution is not required to, in respect of the collateral, hold regulatory capital for the credit exposure to the person holding the collateral if-
  - (a) the collateral is held by a custodian; and
  - (b) the collateral is bankruptcy remote from the CCP, the clearing member concerned and the other clients of the clearing member.
- (4) Where an authorized institution is a client and has posted collateral for transactions with a CCP and-
  - (a) the CCP is a qualifying CCP;
  - (b) the collateral is held by the CCP on the institution's behalf; and
  - (c) the collateral is not held on a bankruptcy remote basis,

the institution must allocate to its credit exposure to the CCP in respect of the collateral-

- (d) a risk-weight of 2% if all the conditions [mentioned] in section 226V(5) are met; or
- (e) a risk-weight of 4% if all the conditions mentioned in section 226V(5) are met other than the condition mentioned in section 226V(5)(a)(iii).
- (5) To avoid doubt, an authorized institution that has posted an asset as collateral must hold regulatory capital for the credit risk or market risk, whichever is applicable, of the asset itself calculated in accordance with Part 4, 5, 6, 7 or 8, as the case requires, as if it had not been posted as collateral and, if the collateral is held by another person, as if the collateral were held by the institution.
- (6) In this section-

*custodian* ( ) means a trustee, agent, pledgee, secured creditor or any other person that holds property (referred to in this definition as the "property holder") in a way-

- (a) that does not give the property holder a beneficial interest in the property; and
- (b) that will not result in the property being subject to legally-enforceable claims by the property holder's creditors, or to a courtordered stay of the return of the property, if the property holder become insolvent or bankrupt.".

# 84. Section 227 amended (interpretation of Part 7)

Section 227(1), definition of *credit equivalent amount*-

# Repeal paragraph (a)

#### Substitute

"(a) in relation to an off-balance sheet securitization exposure of an authorized institution which uses the STC(S) approach, subject to paragraph (c), means the credit equivalent amount calculated under section 234(3)(a) and (b);".

# 85. Section 232 amended (provisions applicable to ECAI issue specific ratings in addition to those applicable under Part 4)

(1) Section 232(d)(i)-

## Repeal

"provided directly"

# Substitute

"subject to section 232A(2) and (3), provided directly".

(2) Section 232(e)-

# Repeal

"if, in a"

# Substitute

"subject to section 232A(2) and (3), if, in a".

#### 86. Section 232A added

After section 232-

Add

#### "232A. Recognized guarantees and recognized credit derivative contracts

- (1) Subject to subsections (2) and (3)-
  - (a) a guarantee which falls within section 98 constitutes a recognized guarantee under Part 7 in relation to a securitization exposure of an authorized institution; and
  - (b) a credit derivative contract which falls within section 99 constitutes a recognized credit derivative contract under Part 7 in relation to a securitization exposure of an authorized institution.
- (2) For the purposes of sections 232(f), 243(2)(b) (where the underlying exposures are securitization exposures) and 247, sections 98(a)(vi) and 99(1)(b)(vi) are deemed to read as-
  - "(vi) a corporate incorporated outside India that-
    - (A) has an ECAI issuer rating that, if mapped to the scale of credit quality grades in Part 1 of Table C in Schedule 6, would result in the corporate being assigned a credit quality grade of 1, 2 or 3; and
    - (B) had an ECAI issuer rating at the time the credit protection was given that, if mapped to the scale of credit quality grades in Part 1 of Table C in Schedule 6, would result in the corporate being assigned a credit quality grade of 1 or 2;
  - (via) a corporate incorporated in India that-
    - (A) has an ECAI issuer rating that, if mapped to the scale of credit quality grades in Part 1 of Table C in Schedule 6, would result in the corporate being assigned a credit quality grade of 1, 2 or 3 or, if mapped to the scale of credit quality grades in Part 2 of that Table, would result in the corporate being assigned a credit quality grade of 1, 2, 3 or 4; and
    - (B) had an ECAI issuer rating at the time the credit protection was given that, if mapped to the scale of

credit quality grades in Part 1 of Table C in Schedule 6, would result in the corporate being assigned a credit quality grade of 1 or 2 or, if mapped to the scale of credit quality grades in Part 2 of that Table, would result in the corporate being assigned a credit quality grade of 1, 2 or 3,".

- (3) For the purposes of sections 232(f), 255(2)(b) (where the underlying exposures are securitization exposures), 265, 278 and 279, sections 98(a)(vi) and 99(1)(b)(vi) are deemed to read as-
  - "(vi) a corporate incorporated outside India-
    - (A) that-
      - has an ECAI issuer rating that, if mapped to the scale of credit quality grades in Part 1 of Table C in Schedule 6, would result in the corporate being assigned a credit quality grade of 1, 2 or 3; and
      - (II) had an ECAI issuer rating at the time the credit protection was given that, if mapped to the scale of credit quality grades in Part 1 of Table C in Schedule 6, would result in the corporate being assigned a credit quality grade of 1 or 2; or
    - (B) that-
      - (I) has an exposure assessed under the institution's rating system with an estimate of PD that is equivalent to the PD of an exposure with a credit quality grade of 1, 2 or 3 in Part 1 of Table C in Schedule 6; and
      - (II) had an exposure assessed under the institution's rating system at the time the credit protection was given with an estimate of PD that was equivalent to the PD of an exposure with a credit quality grade of 1 or 2 in Part 1 of Table C in Schedule 6;
  - (via) a corporate incorporated in India-
    - (A) that-

- (I) has an ECAI issuer rating that, if mapped to the scale of credit quality grades in Part 1 of Table C in Schedule 6, would result in the corporate being assigned a credit quality grade of 1, 2 or 3 or, if mapped to the scale of credit quality grades in Part 2 of that Table, would result in the corporate being assigned a credit quality grade of 1, 2, 3 or 4; and
- (II) had an ECAI issuer rating at the time the credit protection was given that, if mapped to the scale of credit quality grades in Part 1 of Table C in Schedule 6, would result in the corporate being assigned a credit quality grade of 1 or 2 or, if mapped to the scale of credit quality grades in Part 2 of that Table, would result in the corporate being assigned a credit quality grade of 1, 2 or 3; or
- (B) that-
  - (I) has an exposure assessed under the institution's rating system with an estimate of PD that is equivalent to the PD of an exposure with a credit quality grade of 1, 2 or 3 in Part 1 of Table C in Schedule 6 or a credit quality grade of 1, 2, 3 or 4 in Part 2 of that Table; and
  - (II) had an exposure assessed under the institution's rating system at the time the credit protection was given with an estimate of PD that was equivalent to the PD of an exposure with a credit quality grade of 1 or 2 in Part 1 of Table C in Schedule 6 or a credit quality grade of 1, 2 or 3 in Part 2 of that Table,".

# 87. Section 265 amended (recognized credit risk mitigation)

(1) Section 265(b)-

# Repeal

"section 51(1)" wherever appearing

# Substitute

"section 232A".

(2) Section 265(c)-

# Repeal

"and (4)"

# Substitute

", (4) and (5)".

# 88. Section 272 amended (credit enhancement level of tranche)

(1) Section 272(1)(a)-

# Repeal

"relevant amounts of all securitization positions"

## Substitute

"outstanding amounts of all tranches".

(2) Section 272(1)(b)(ii)-

# Repeal

"realized or held by the institution".

(3) Section 272(1)-

# Repeal paragraph (c)

# Substitute

- "(c) subject to paragraph (d), if any interest rate contract or exchange rate contract in the securitization transaction ranks junior for payment to the tranche concerned, the institution may measure the size of the contract at its current exposure in calculating L;".
- (4) Section 272-

# **Repeal subsection (2).**

#### 89. Section 273 amended (thickness of tranche)

(1) Section 273(1)(a)-

#### Repeal

"relevant amount of that tranche of the transaction to the EAD"

## Substitute

"nominal amount of that tranche of the transaction to the nominal amount".

(2) Section 273(1)-

# Repeal paragraph (b)

# Substitute

- "(b) for the purposes of paragraph (a), if the tranche or underlying exposure concerned is an exposure arising from an interest rate contract or exchange rate contract, the institution must-
  - (i) if the current exposure of the contract is not negative, determine the nominal amount of the exposure arising from the contract as the sum of the current exposure and the potential exposure of the contract;
  - (ii) if the current exposure of the contract is negative, determine the nominal amount of the exposure arising from the contract as only the potential exposure of the contract.".
- (3) Section 273-

# **Repeal subsection (2)**

# Substitute

"(2) To avoid doubt, an authorized institution that has an IMM(CCR) approval for OTC derivative transactions must comply with paragraph (b) of subsection (1), in determining the nominal amount of the exposure arising from an OTC derivative transaction, as if it did not have that approval for those transactions.".
# 90. Section 278 amended (treatment of recognized credit risk mitigation - full credit protection)

(1) Section 278(b)-

# Repeal

"section 51(1)" wherever appearing

## Substitute

"section 232A".

(2) Section 278(c)(i)-

# Repeal

"and (4)"

# Substitute

", (4) and (5)".

# 91. Section 279 amended (treatment of recognized credit risk mitigation - partial credit protection)

Section 279(1)(a)-

# Repeal

"section 51(1)" wherever appearing

# Substitute

"section 232A".

## 92. Section 283 amended (positions to be used to calculate market risk)

(1) Section 283(2)(a)-

## Repeal

"section 51(1), 105 or 139(1)"

### Substitute

"section 51(1), 105, 139(1) or 232A".

(2) Section 283(2)(a)-

## Repeal

"book; or"

# Substitute

"book;".

(3) Section 283(2), after paragraph (b)-

# Add

"(c) an eligible CVA hedge (within the meaning of section 226A(1)).".

# 93. 287A amended (calculation of market risk capital charge for specific risk for interest rate exposures that fall within section 286(a)(ii))

(1) Section 287A(1) and (3)-

## Repeal

"and (11)"

## Substitute

", (11) and (12)".

(2) Section 287A, after subsection (11)-

## Add

"(12) To avoid doubt, the credit risk mitigation treatment specified in Part 7 does not apply in relation to an authorized institution's calculation of market risk capital charge for specific risk interest rate exposures mentioned in subsection (1).".

## 94. Section 313 amended (counterparty credit risk)

Section 313-

### **Repeal subsection (5)**

### Substitute

- "(5) To avoid doubt, it is hereby declared that-
  - (a) there is no counterparty credit risk for an authorized institution as the purchaser or issuer of a credit-linked note;
  - (b) an authorized institution must use the current exposure method or the IMM(CCR) approach, as the case requires, to calculate default risk exposures arising from credit derivative contracts booked in its trading book; and
  - (c) an authorized institution must calculate the CVA capital charge of credit derivative contracts booked in its trading book in accordance with Part 6A.".

## 95. Section 316 amended (positions to be used to calculate market risk)

(1) Section 316(2)(a)-

## Repeal

"section 51(1), 105 or 139(1)"

### Substitute

"section 51(1), 105, 139(1) or 232A".

(2) Section 316(2)(a)-

## Repeal

"book; or"

# Substitute

"book;".

(3) Section 316(2), after paragraph (b)-

# Add

"(c) an eligible CVA hedge (within the meaning of section 226A(1)).".

# 96. Section 318 amended (capital treatment for trading book positions subject to incremental risk charge or comprehensive risk charge)

Section 318(4)(a)-

# Repeal

"the market risk capital charge for general market risk and".

## 97. Section 321 amended (counterparty credit risk)

Section 321-

### **Repeal subsection (5)**

### Substitute

- "(5) To avoid doubt, it is hereby declared that-
  - (a) there is no counterparty credit risk for an authorized institution as the purchaser or issuer of a credit-linked note;
  - (b) an authorized institution must use the current exposure method or the IMM(CCR) approach, as the case requires, to calculate default risk exposures arising from credit derivative contracts booked in its trading book; and
  - (c) an authorized institution must calculate the CVA capital charge of credit derivative contracts booked in its trading book in accordance with Part 6A.".

# 98. Schedule 1 amended (specifications for purposes of certain definitions in section 2(1) of these Rules)

(1) Schedule 1, heading-

Repeal

"SECTION 2(1) OF".

(2) Schedule 1, after Part 10-

Add

## "PART 11

MAIN BUSINESS OF UNREGULATED FINANCIAL INSTITUTION".

# 99. Schedule 3 amended (minimum requirements to be satisfied for approval under section 18 of these Rules to use IMM approach)

Schedule 3, after "[ss. 18, 19, 97,"-

Add

"226N,".

#### 100. Schedule 3A added

After Schedule 2-

Add

#### **"SCHEDULE 3A**

[ss. 10B, 10D & 226C]

## MINIMUM REQUIREMENTS TO BE SATISFIED FOR APPROVAL UNDER SECTION 10B(2)(a) TO USE IMM(CCR) APPROACH

## 1. General requirements

An authorized institution [which] makes an application under section 10B(2)(a) of these Rules to use the IMM(CCR) approach must demonstrate to the satisfaction of the Monetary Authority that-

- (a) the board of directors (or a committee designated by the board) and the senior management of the institution-
  - (i) approve all the key elements of, and any material changes to, the institution's counterparty credit risk management system (being the methods, models, processes, controls, and data collection and information technology systems used by the institution which enable the identification, measurement, management and control of counterparty credit risk by the institution);
  - (ii) possess an understanding of the design and operation of, and the management reports generated by, the institution's counterparty credit risk management system adequate for them to perform their functions specified in this paragraph;
  - (iii) exercise oversight of the institution's counterparty credit risk management system sufficient to ensure that the system complies with paragraph (b); and
  - (iv) ensure that there is a reporting system within the institution to provide information (including, but not limited to, information relating to any material changes to, or deviations from, established policies

and procedures or any material findings identified in a review or audit referred to in paragraph (k)) to them regularly and in sufficient detail as will enable them to-

- (A) exercise the oversight referred to in subparagraph (iii); and
- (B) make informed decisions relating to the institution's counterparty credit risk exposures;
- (b) the institution's counterparty credit risk management system-
  - (i) is suitable for the purposes of identifying, measuring, managing, controlling and reporting the institution's counterparty credit risk taking into account the characteristics and extent of the institution's counterparty credit risk exposures;
  - (ii) identifies, measures, monitors and controls counterparty credit risk over the life of transactions;
  - (iii) measures and manages both current exposures (gross and net of collateral held, where appropriate) and future exposures; and
  - (iv) is operated in a prudent and [consistently] effective manner that is also consistent with sound practices for counterparty credit risk management;
- (c) the institution-
  - (i) clearly documents the counterparty credit risk management system and the internal policies, controls and procedures relating to the operation of the system, including-
    - (A) the internal models to which the application relates (referred to in this Schedule as *relevant models*);
    - (B) the calculation of the risk measures generated by the relevant models with sufficient details for a third party to re-create the risk measures; and

- (C) the model validation process, including frequency and methodologies of validation and analyses used; and
- (ii) has a system for monitoring and ensuring compliance with those internal policies, controls and procedures;
- (d) the institution has a risk control unit-
  - which is functionally independent of the institution's staff and management responsible for originating counterparty credit risk exposures;
  - (ii) which reports directly to the institution's senior management;
  - (iii) which is responsible for-
    - (A) the design or selection of the institution's counterparty credit risk management system;
    - (B) the testing, validation and implementation of the institution's counterparty credit risk management system;
    - (C) the oversight of the effectiveness of the institution's counterparty credit risk management system for the purposes of paragraph (b), including the control of data integrity;
    - (D) the production and analysis of daily management reports on the output of the relevant models, including an evaluation of the relationship between measures of counterparty credit risk exposure and credit and trading limits;
    - (E) the ongoing review of, and changes to, the institution's counterparty credit risk management system; and
    - (F) the conduct of a regular back-testing programme to verify the accuracy and reliability of the relevant models;

- (iv) the work of which is an integral part of the day-today credit risk management process of the institution; and
- (v) the daily management reports of which are reviewed by a level of management with sufficient seniority and authority to enforce both reductions of positions taken by individual traders and reductions in the institution's overall risk exposure;
- (e) the institution has a collateral management unit-
  - which is adequately staffed and with sufficient resources to process margin calls and disputes in a timely and accurate manner even during periods of severe market crisis, and to enable the institution to limit the number of large disputes caused by trade volumes; and
  - (ii) which is responsible for-
    - (A) calculating and making margin calls, managing margin call disputes and reporting levels of independent amount, initial margins and variation margins accurately on a daily basis;
    - (B) controlling the integrity of the data used to make margin calls and ensuring that [such] data are consistent and reconciled regularly with all relevant data sources within the institution;
    - (C) tracking the extent of reuse of collateral (both cash and non-cash) and the rights ceded by the institution in respect of the collateral that it posts;
    - (D) tracking concentration in individual types of collateral accepted by the institution; and
    - (E) producing and maintaining appropriate collateral management information (including information on the type of collateral (cash and non-cash) received and posted, categories of collateral reused and the terms of the reuse, and the size, aging and cause of margin disputes, and the trends

in the areas to which such information relates) and reporting the information to the institution's senior management on a regular basis;

- (f) the institution has a sufficient number of staff who are qualified and trained to use the relevant models in the institution's business, risk control, audit and back office functions as will enable those functions to work effectively in identifying, measuring, managing, controlling and reporting the institution's counterparty credit risk;
- (g) the use of the relevant models is part of the institution's counterparty credit risk management system and plays an essential role in the institution's daily risk management, capital planning and corporate governance functions, with-
  - (i) the results generated by the relevant models being used in-
    - (A) planning, measuring, monitoring and controlling the institution's counterparty credit risk exposures;
    - (B) determining the institution's trading and credit risk exposure limits and measuring the usage of those limits;
    - (C) credit approval; and
    - (D) internal capital allocation; and
  - (ii) the relationship between the relevant models and the limits mentioned in paragraph (i)(B) being maintained consistently over time and understood by the institution's senior management, credit function and staff engaged in trading activity;
- (h) the institution-
  - (i) uses stress-testing and scenario analysis to identify risk factors that give rise to general wrong-way risk and address the possibility of severe shocks;
  - (ii) monitors general wrong-way risk by product, by region, by industry, or by other categories that are relevant to the business of the institution;

- (iii) has policies and procedures for identifying, monitoring and controlling transactions with specific wrong-way risk at the inception and throughout the life of the transactions; and
- (iv) provides regular reports on wrong-way risks to its senior management and board of directors (or a committee designated by the board);
- the cash management policy of the institution takes account of the liquidity risks arising from potential incoming margin calls (including calls for posting of collateral due to adverse market shocks or potential downgrade of the institution's external credit rating and calls for return of collateral);
- (j) the institution ensures that the nature and horizon of collateral reuse are consistent with its liquidity needs and do not jeopardize its ability to post or return collateral in a timely manner;
- (k) an independent review or audit of the institution's compliance with internal policies, controls and procedures, including the requirements specified in this Schedule, in respect of the institution's counterparty credit risk management system is conducted regularly by the institution's internal auditors or by independent external parties which are qualified to do so;
- (l) the institution, prior to being granted an IMM(CCR) approval-
  - (i) has been using an internal model which is broadly consistent with the requirements set out in this Schedule to estimate the distribution of exposures (within the meaning given in section 226G(2) of these Rules) using current market data for such period, which in any case is not less than 1 year, as the Monetary Authority considers reasonable in all the circumstances of the case; and
  - (ii) has been conducting back-testing, being back-testing which is broadly consistent with the requirements set out in this Schedule relating to back-testing, using historical data on movements in market risk factors.

### 2. Specific requirements relating to the relevant models

Without prejudice to the generality of section 1, an authorized institution must demonstrate to the satisfaction of the Monetary Authority that-

- (a) the relevant models specify the forecast of the probability distribution of changes in the market value of a netting set attributable to changes in relevant market factors and calculates the institution's counterparty credit risk exposure for the netting set at each future date given the changes in the market factors;
- (b) the relevant models capture and accurately reflect, on a continuing basis, all material factors affecting counterparty credit risk inherent in the institution's transactions;
- (c) the relevant models capture transaction specific information in order to aggregate exposures at netting set level;
- (d) the institution calculates counterparty credit risk on the basis of a distribution of exposures that accounts for the possible non-normality of the distribution of exposures;
- (e) the relevant models have a proven track record of acceptable accuracy in measuring counterparty credit risk;
- (f) the pricing models for options account for the non-linearity of option value with respect to market risk factors; and
- (g) the relevant models are capable of estimating EE on a daily basis (unless the institution is able to otherwise demonstrate to the satisfaction of the Monetary Authority that a less frequent calculation is warranted) and the EE is estimated along a time profile of forecasting horizons that adequately reflects the time structure of future cash flows and maturity of transactions.

# **3.** Specific requirements relating to integrity of the modelling process

Without prejudice to the generality of sections 1 and 2, an authorized institution must demonstrate to the satisfaction of the Monetary Authority that-

- (a) transaction terms and specifications are reflected in the relevant models in a timely, complete, and conservative manner, and maintained in a secure database that is subject to formal and periodic audit;
- (b) the terms and specifications of any valid bilateral netting agreements or valid cross-product netting agreements are input into the database by an independent unit;
- (c) the transmission of data on transaction terms and specifications to the relevant models is subject to internal audit and the institution has formal processes for reconciliation between the relevant models and the source data systems to verify on an ongoing basis that transaction terms and specifications are reflected in EE correctly or at least conservatively;
- (d) the institution has internal procedures to verify that-
  - prior to including a transaction in a netting set, the transaction is covered by a valid bilateral netting agreement or a valid cross-product netting agreement, as the case may be, and the legal enforceability of the agreement has been verified by legal staff;
  - (ii) prior to recognizing the effect of collateral in the calculation of counterparty credit risk, the collateral meets the legal certainty standards set out in section 77 of these Rules;
- (e) the institution, when calibrating its relevant models using historical market data-
  - (i) uses current market data to compute current exposures;
  - (ii) estimates the parameters of the models using either-
    - (A) at least 3 years of historical market data; or
    - (B) market implied data; and
  - (iii) updates the data quarterly, or more frequently if market conditions warrant it;
- (f) for the purposes of performing the calculations mentioned in section 226C(1)(b), the institution calibrates its relevant

models and estimates the parameters of the models using either-

- (i) 3 years of data that include a period of stress to the credit default spreads of the institution's counterparties; or
- (ii) market implied data from a suitable period of stress; and
- (g) the institution adopts the following measures to ensure the adequacy of the stress calibration mentioned in paragraph (f)-
  - (i) the institution demonstrates, at least quarterly, that-
    - (A) the period of stress referred to in paragraph
      (f) coincides with a period of increased
      credit default swap spreads or other credit
      spreads of a representative selection of the
      institution's counterparties with traded credit
      spreads; and
    - (B) where adequate credit spread data for a counterparty is not available for the purposes of subparagraph (A), the institution maps the counterparty to specific credit spread data based on the counterparty's geographical location, internal rating and business type;
  - (ii) the relevant models use data (either historical or implied) that include data from a period of credit stress and use such data in a manner that is consistent with the method used for the calibration of the relevant models to current market data; and
  - (iii) for the purposes of evaluating the effectiveness of its stress calibration, the institution creates several benchmark portfolios that are vulnerable to the same main risk factors to which the institution is exposed and compares the exposures to the benchmark portfolios calculated using-
    - (A) current positions at current market prices, and model parameters calibrated in a manner set out in paragraph (f)(i); and

(B) current positions at market prices at the end of the 3 years mentioned in paragraph (f)(i), and model parameters calibrated in a manner [set out] in that paragraph.

## 4. Specific requirements relating to stress-testing

Without prejudice to the generality of sections 1, 2 and 3, an authorized institution must demonstrate to the satisfaction of the Monetary Authority that-

- (a) the institution has a comprehensive stress-testing programme for counterparty credit risk which is conducted regularly and includes the following elements-
  - the programme comprehensively captures transactions and aggregate exposures across all forms of trading and across different product categories at the counterparty-specific level. The time frame selected for the capturing and aggregation is commensurate with the frequency with which stress tests are conducted;
  - (ii) there is at least monthly stress-testing of principal market risk factors, including interest rates, exchange rates, equities prices, credit spreads and commodity prices, for all counterparties of the institution to assess concentration in specific directional risks;
  - (iii) there is at least quarterly multifactor stress-testing to assess material non-directional risks including yield curve exposures and basis risks. The stress-testing addresses, at a minimum, the following scenarios:
    - (A) severe economic or market events;
    - (B) significant decrease in broad market liquidity; and
    - (C) the liquidation of a large financial intermediary;
  - (iv) there is at least quarterly stress-testing of joint movement of counterparty credit risk exposures and related counterparty creditworthiness;

- (v) the stress tests (including those mentioned in subparagraphs (i) to (iv)) are conducted at the counterparty-specific level and the counterparty-group level (grouped by industry, region or other relevant criteria), and in aggregate at the institution-wide level;
- (vi) the severity of shocks are consistent with the purpose of the stress test; and
- (vii) the programme includes provision, where appropriate, for reverse stress tests to identify extreme, but plausible, scenarios that could result in significant adverse outcomes; and
- (b) the stress-testing results are-
  - (i) reported routinely to the institution's senior management and periodically to the institution's board of directors (or a committee designated by the board) and cover the largest counterparty-level impacts across the institution's portfolio, material segmental concentrations (within the same industry or region) and portfolio and counterparty specific trends; and
  - (ii) used in-
    - (A) managing the institution's counterparty credit risk, including the setting of policies, risk appetite and exposure limits; and
    - (B) performing the assessment of the adequacy of the institution's regulatory capital and internal capital for counterparty credit risk and the institution's ability to withstand any future events, or changes in economic conditions, that could have adverse effects on the institution's counterparty credit risk exposures.

## 5. Specific requirements relating to model validation

Without prejudice to the generality of sections 1 to 4, an authorized institution must demonstrate to the satisfaction of the Monetary Authority that-

- (a) the institution has a reliable validation system for validating the accuracy, comprehensiveness and consistency of the relevant models (including the risk measures and risk factor predictions generated by or used in the models) by parties-
  - who are qualified and trained to do so and who are independent of the staff and management responsible for originating counterparty credit risk and the development of the relevant models; and
  - (ii) whose aim is to ascertain whether the relevant models are conceptually sound, able to capture all material factors affecting counterparty credit risk, and continue to perform as intended;
- (b) the validation referred to in paragraph (a) must meet the following requirements-
  - (i) the validation is conducted-
    - (A) when a relevant model is initially developed and thereafter regularly at a frequency which is adequate to reflect the recent performance of the model; and
    - (B) when any significant changes are made to a relevant model or when there have been significant structural changes in the market or changes to the composition of the institution's portfolio of exposures which might lead to the relevant model concerned no longer being adequate to capture all material factors affecting counterparty credit risk;
  - (ii) the validation assesses the accuracy, comprehensiveness and consistency of the relevant models in respect of the results generated by the models at both the institution-wide level and the netting set level;
  - (iii) the validation procedures-
    - (A) are clearly documented in sufficient detail as will enable a third party to evaluate the appropriateness of the procedures and recreate the analysis performed by the institution;

- (B) define assessment criteria and describe the process by which unacceptable performance will be determined and remedied;
- (C) ensure that the relevant models cover all factors and products that have a material contribution to counterparty credit risk exposures;
- (D) ensure that all counterparties for which the relevant models are used are covered by the validation;
- (E) ensure that both the assumptions and approximations underlying the relevant models are prudent and appropriate for the measurement of the institution's counterparty credit risk exposures; and
- (F) define how representative counterparty portfolios are constructed for the purposes of the validation mentioned in paragraph (d)(v);
- (c) the validation of the relevant models and the risk measures that produce forecasts of distributions assesses more than a single statistic of the distributions;
- (d) as part of the initial and on-going validation process, the institution-
  - (i) conducts appropriate back-testing to-
    - (A) assess the performance of the relevant models and the risk measures and market risk factor predictions that are used to estimate EE; and
    - (B) test the key assumptions of the relevant models and the risk measures;
  - (ii) includes in back-testing-
    - (A) a number of distinct prediction time horizons set out to at least 1 year, over a range of various start dates and covering a wide range of market conditions; and

- (B) in the case of collateralized transactions, prediction time horizons that reflect typical margin periods of risk applied in such transactions and long time horizons that are at least 1 year;
- (iii) tests the pricing models used to calculate counterparty credit risk exposure for a given scenario of future shocks to market risk factors and against appropriate independent benchmarks;
- (iv) verifies that transactions are assigned to an appropriate netting set within the model;
- (v) conducts static, historical back-testing on representative counterparty portfolios, with the representative counterparty portfolios chosen based on their sensitivity to the material risk factors and correlations to which the institution is exposed;
- (vi) validates the relevant models and risk measures out to time horizons that are commensurate with the maturity of transactions covered by the institution's IMM(CCR) approval; and
- (vii) assesses the frequency with which the parameters of the relevant models are updated; and
- (e) the validation results, including those of back-testing, are reviewed periodically by a level of management with sufficient authority to decide the actions that will be taken to address any weaknesses identified in the models.

# 6. Additional requirements relating to relevant models which capture the effects of margin agreements

Without prejudice to the generality of sections 1 to 5, an authorized institution must demonstrate to the satisfaction of the Monetary Authority that, if the relevant models used by the institution capture the effects of margin agreements when estimating EE, the models-

(a) meet the requirements of sections 1 to 5 in respect of the prediction of future collateral values;

- (b) include transaction-specific information in order to capture the effects of margining;
- (c) take into account both the current amount of collateral and collateral that would be passed between counterparties in the future;
- (d) account for the nature of margin agreements (whether the agreement concerned is unilateral or bilateral), the frequency of margin calls, the margin period of risk, the thresholds, and the minimum transfer amount; and
- (e) either estimate the mark-to-market change in the value of collateral posted, or apply the rules for recognized collateral set out in Part 4, 5 or 6, as the case may be, of these Rules.

## 7. Additional requirements relating to the shortcut method

Without prejudice to the generality of sections 1 to 6, an authorized institution that uses the shortcut method must demonstrate to the satisfaction of the Monetary Authority that-

- (a) the institution's back-testing programme tests regularly whether the counterparty credit risk exposures predicted by the shortcut method over all margin periods of risk within 1 year are consistent with the realized values of the exposures;
- (b) if some of the transactions in a netting set have a maturity of less than 1 year and the netting set would have higher risk factor sensitivities if these transactions were removed from the netting set, this fact will be taken into account in the back-testing and other validation processes for the method; and
- (c) the institution has procedures to ensure that if the backtesting result indicates that effective EPE is underestimated, appropriate actions will be taken to make the predicted values more conservative.".

# 101. Schedule 6 amended (credit quality grades)

Schedule 6-

# Repeal

"[ss. 55, 59, 60, 61A, 62, 79, 98, 99, 139, 211, 281 and 287 & Sch. 7]"

# Substitute

"[ss. 55, 59, 60, 61A, 62, 79, 98, 99, 139, 211, 232A, 281 & 287 & Sch. 7]".

# **102.** Schedule 7 amended (standard supervisory haircuts for comprehensive approach to treatment of recognized collateral)

(1) Schedule 7, section 1, Table-

# **Repeal Part 1**

# Substitute

## "Part 1

## Standard Supervisory Haircuts for Debt Securities

					Standard supervisory haircuts		
Item	Types of exposure or recognized collateral	Credit quality grade/short-term credit quality grade		Residual maturity	Sovereign issuers	Other issuers	Securitization exposures (excluding re- securitization exposures)
1.	Debt securities with ECAI issue specific	grade 1 (in relation to Table A, Table B, Part 1 of Table C or Part 1 of Table E in Schedule 6, or Table A or Table B in Schedule 11) and grades 1 and 2 (in relation to Part 2 of Table C or Part 2 of Table E in Schedule 6)	(a)	not more than 1 year	0.5%	1%	2%
	ratings		(b)	more than 1 year but not more than 5 years	2%	4%	8%
			(c)	more than 5 years	4%	8%	16%
2.	Recognized collateral which falls within any	grade 1 (in relation to ( Table A, Table B, Part 1 of Table C or	(a)	not more than 1 year	0.5%	1%	2%
	of section 79(1)(e) to (la) of these Rules	Part 1 of Table E in Schedule 6, or Table A or Table B in Schedule 11) and grades 1 and 2 (in	(b)	more than 1 year but not more than 5 years	2%	4%	8%
		Table C or Part 2 of Table E in Schedule 6)	(c)	more than 5 years	4%	8%	16%
3.	Debt securitiesgracwith ECAIrelaissue specificTab	grades 2 and 3 (in relation to Table A, Table B, Part 1 of	(a)	not more than 1 year	1%	2%	4%
ratings	ratings	Table C or Part 1 of Table E in Schedule 6, or Table A or Table B in Schedule	(b)	more than 1 year but not more than 5	3%	6%	12%

					Standard supervisory haircuts			
Item	Types of exposure or recognized collateral	Credit quality grade/short-term credit quality grade		Residual maturity	Sovereign issuers	Other issuers	Securitization exposures (excluding re- securitization exposures)	
		4 (in relation to Part 2 of Table C or Part 2 of Table E in Schedule 6)	(c)	more than 5 years	6%	12%	24%	
4.	Recognized collateral which falls within any of section 79(1)(e) to (la) of these Rules	grades 2 and 3 (in relation to Table A, Table B, Part 1 of Table C or Part 1 of Table E in Schedule 6, or Table A or Table B in Schedule 11) and grades 3 and 4 (in relation to Part 2 of Table C or Part 2 of Table E in Schedule 6)	(a)	not more than 1 year	1%	2%	4%	
			(b)	more than 1 year but not more than 5 years	3%	6%	12%	
			(c)	more than 5 years	6%	12%	24%	
5.	Debt securities with long-term ECAI issue specific ratings	grade 4	All		15%	not applicable	not applicable	
6.	Recognized collateral which falls within section 79(1)(e), (f) or (h) of these Rules	grade 4	All		15%	not applicable	not applicable	
7.	Debt securities without ECAI issue specific	not applicable	(a)	not more than 1 year	not applicable	2%	not applicable	
	ratings issued by banks or securities firms, which satisfy the criteria set out in section 79(1)(m) of these Rules		(b)	more than 1 year but not more than 5 years	not applicable	6%	not applicable	
			(c)	more than 5 years	not applicable	12%	not applicable	
8.	Recognized collateral, which falls	not applicable	(a)	not more than 1 year	not applicable	2%	not applicable	
	within section 79(1)(m) of		(b)	more than 1 year but	not applicable	6%	not applicable	

				Standard supervisory haircuts			
Item	Types of exposure or recognized collateral	Credit quality grade/short-term credit quality grade	Residual maturity	Sovereign issuers	Other issuers	Securitization exposures (excluding re- securitization exposures)	
	these Rules		not more than 5 years				
			(c) more than 5 years	not applicable	12%	not applicable	

(2) Schedule 7, Part 2, item 2-

## Repeal

"79(a)"

# Substitute

"79(1)(a)".

(3) Schedule 7, Part 2, item 4-

# Repeal

"79(d)"

# Substitute

"79(1)(d)".

(4) Schedule 7, Part 2, item 6-

# Repeal

"80(b)"

# Substitute

"80(1)(b)".

(5) Schedule 7, Part 2, item 8-

## Repeal

"79(o) or 80(c)"

# Substitute

"79(1)(o) or 80(1)(c)".

(6) Schedule 7, Part 3, item 4-

Repeal

"80(a)"

# Substitute

"80(1)(a)".

[].[].2012.

Monetary Authority

## **Explanatory Note**

These Rules are made by the Monetary Authority under section 97C of the Banking Ordinance (Cap. 155) and amend the Banking (Capital) Rules (Cap. 155 sub. leg. L (*principal Rules*).

- 2. The principal Rules, which were made in 2006, prescribe the manner in which the capital adequacy ratio of an authorized institution incorporated in Hong Kong is to be calculated. The principal Rules have now been in operation for over 5 years and were last amended (on 1 January 2012) by the Banking (Capital) (Amendment) Rules 2011 (L.N. 137 of 2011).
- 3. The main purpose of the Rules is to incorporate into the principal Rules-
  - (a) amendments relating to the internal model method for calculating counterparty credit risk as set out in Annex 4 to the document entitled "International Convergence of Capital Measurement and Capital Standards A Revised Framework (Comprehensive Version)" (*Basel II*) issued by the Basel Committee on Banking Supervision (*BCBS*) in June 2006;
  - (b) amendments relating to enhancements to the risk coverage of Basel II set out in the document entitled "Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems" issued by the BCBS in December 2010;
  - (c) amendments relating to the new capital framework for exposures to central counterparties set out in the document entitled "Capitalisation of Bank Exposures to Central Counterparties" issued by the BCBS in [January 2012]; and
  - (d) amendments relating to bringing the capital treatments of trade finance into line with those set out in the document entitled "Treatment of Trade Finance under the Basel Capital Framework" issued by the BCBS in October 2011.
- 4. The Rules come into operation on 1 January 2013 except for the Rules mentioned in Rule 1(2). The Rules so mentioned, which relate to the calculation by authorized institutions of their credit risk for exposures to central counterparties (see the definition at Rule 3(10) of the Rules), clearing members (see the definition at Rule 3(15) of the Rules) and clients, come into operation on [...]<sup>7</sup>.

<sup>&</sup>lt;sup>7</sup> Subject to the implementation date to be announced by the Basel Committee.