Proposed Amendments to Banking (Capital) Rules for

Implementation of SA-CCR and capital requirements for exposures to CCPs

1. Section 2 amended (interpretation)

(1) Section 2(1)—

Repeal the definition of *CCP-related transaction*

Substitute

"***CCP-related transaction***—

(a) in relation to the clearing of a contract or transaction (***principal trade***) of a direct client by a CCP that does not involve a multi-level client structure, means a derivative contract or SFT between the clearing member of the CCP and the client that—

(i) is entered into for the purpose of clearing the principal trade where the clearing member acts on behalf of the client as an intermediary between the client and the CCP; and

(ii) is directly related to an offsetting transaction between the CCP and the clearing member entered into for the purpose of clearing the principal trade; or

(b) in relation to the clearing of a principal trade of a lower level client by a CCP that involves a multi-level client structure—see section 2AA;".

(2) Section 2(1), definition of ***CEM risk-weighted amount***, paragraph (a)—

Repeal

"if the STC approach or BSC approach is used".

(3) Section 2(1), definition of ***CEM risk-weighted amount***, paragraph (b)—

Repeal

"under the STC approach, BSC approach or IRB approach, as the case requires"

Substitute

"by using the BSC approach".

(4) Section 2(1)—

Repeal the definition of *client*

Substitute

"***client***, in relation to the clearing of contracts or transactions by using the clearing services provided by a clearing member of a CCP, means—

(a) if it does not involve a multi-level client structure—a direct client; or

(b) if it involves a multi-level client structure—a direct client or an indirect client;".

(5) Section 2(1)—

Repeal the definition of *commodity*

Substitute

"***commodity***—

(a) in relation to the calculation of counterparty credit risk, means any of the following—

(i) any metal (including gold), energy, agricultural product or any other physical product that is traded on an exchange or similar trading facility; or

(ii) any freight rate, climatic variable or other economic statistic (other than any measure of inflation); or

(b) in any other case—means any precious metal (other than gold), base metal, non-precious metal, energy, agricultural asset or other physical product that is traded on an exchange;".

(6) Section 2(1), definition of ***counterparty default risk***—

Repeal

"by an authorized institution".

(7) Section 2(1)—

Repeal the definition of *credit conversion factor*

Substitute

"***credit conversion factor***—

(a) in relation to the determination of the credit equivalent amount (within the meaning of section 51(1), 105 or 139(1) as the case requires) of an off-balance sheet exposure of an authorized institution that is not a default risk exposure—means a percentage by which the principal amount (within the meaning of section 51(1), 105 or 139(1) as the case requires) of the exposure is multiplied as a part of the process for determining the credit equivalent amount of the exposure; or

(b) in relation to the determination of the amount of default risk exposure in respect of a derivative contract by using the current exposure method—means a percentage by which the notional amount of the derivative contract is multiplied as a part of the process for determining the amount of the exposure;".

(8) Section 2(1), definition of ***credit quality grade***—

Repeal

"for an exposure of an authorized institution"

Substitute

"or other supervisory parameters for an exposure".

(9) Section 2(1)—

Repeal the definition of *current exposure*

Substitute

"***current exposure***, in relation to a derivative contract of an entity (***existing contract***), means the replacement cost that—

(a) would be incurred by the entity if it were required to enter into another derivative contract to replace the existing contract with another counterparty with substantially the same economic consequences for the entity; and

(b) is calculated by marking-to-market the existing contract, and—

(i) if the resultant value is positive for the entity—taking the resultant value of the contract; or

(ii) if the resultant value is zero or negative for the entity—taking the value of zero;".

(10) Section 2(1)—

Repeal the definition of *current exposure method*

Substitute

"***current exposure method*** means the method of calculating default risk exposures set out in Division 2B of Part 6A;".

(11) Section 2(1)—

Repeal the definition of *default risk exposure*

Substitute

"***default risk exposure***, in relation to derivative contracts or SFTs, or both, entered into by an authorized institution or another person, as the case may be, with a counterparty (***relevant trades***), means the exposure of the institution or the person to the counterparty default risk of the counterparty in respect of the relevant trades the amount of which is calculated by the institution by using the SA-CCR approach, the IMM(CCR) approach, the current exposure method or any of the methods referred to in section 10A(1)(b) as required or permitted under these Rules;".

(12) Section 2(1), definition of ***effective expected positive exposure***—

Repeal

"or 226L, as the case requires".

(13) Section 2(1), definition of ***exchange rate contract***, paragraph (a)—

Repeal

"including"

Substitute

"excluding".

(14) Section 2(1)—

Repeal the definition of haircut

Substitute

"***haircut*** ( ) means an adjustment to be applied to a credit protection or an exposure to take into account possible future price fluctuations or fluctuations in exchange rates;".

(15) Section 2(1), definition of ***long settlement transaction***, paragraph (b)—

Repeal

"the institution enters into the transaction or contract"

Substitute

"the transaction or contract is entered into with the counterparty".

(16) Section 2(1), definition of ***margin lending transaction***, paragraph (a)—

Repeal

"the institution extends credit"

Substitute

"credit is extended".

(17) Section 2(1), definition of ***minimum holding period***—

Repeal

"use of the STC approach"

Substitute

"determination or adjustment of standard supervisory haircut or calculation of default risk exposure".

(18) Section 2(1), definition of ***nettable***—

Repeal

"of an authorized institution".

(19) Section 2(1)—

Repeal the definition of *netting set*

Substitute

"***netting set***—

(a) in relation to the calculation of the default risk exposure by using a method or approach other than the IMM(CCR) approach, means—

(i) a group of transactions with a counterparty that are subject to a recognized netting; or

(ii) a transaction with a counterparty that is not subject to a recognized netting; or

(b) in relation to the calculation of the default risk exposure by using the IMM(CCR) approach, means—

(i) a transaction falling within section 226J(1);

(ii) a group of transactions with a counterparty (other than a transaction falling within section 226J(1)) that are subject to a recognized netting; or

(iii) a transaction with a counterparty (other than a transaction falling within section 226J(1)) that is not subject to a recognized netting;".

(20) Section 2(1), definition of ***notional amount***—

Repeal

"of an authorized institution".

(21) Section 2(1), definition of ***outstanding default risk exposure***—

Repeal

"OTC derivative transaction or credit".

(22) Section 2(1), definition of ***over-the-counter derivative transaction***—

Repeal

"(other than a credit derivative contract)".

(23) Section 2(1), definition of ***recognized credit risk mitigation***, paragraph (e)—

Repeal

"that falls within section 226H(3)"

Substitute

"received by the institution that may be included in the estimation mentioned in section 226H(2)(a) or the calculation mentioned in section X30(1) or (2)".

(24) Section 2(1), definition of ***reference entity***—

Repeal

"a credit"

Substitute

"a credit-related".

(25) Section 2(1), definition of ***repo-style transaction***—

Repeal

", in relation to an authorized institution, means a transaction entered into by the institution whereby the institution"

Substitute

"means a transaction entered into by a person whereby the person".

(26) Section 2(1)—

Repeal the definition of *standard supervisory haircut*

Substitute

"***standard supervisory haircut*** means a haircut set out in the Table in section 1 of Schedule 7;".

(27) Section 2(1), definition of ***valid bilateral netting agreement***, after "in relation to an authorized institution"—

Add

"or another person (***concerned party***)".

(28) Section 2(1), definition of ***valid bilateral netting agreement***—

Repeal

"the institution" (wherever appearing)

Substitute

"the concerned party".

(29) Section 2(1), definition of ***valid bilateral netting agreement***, paragraph (c)—

Repeal

"the institution's"

Substitute

"the concerned party's".

(30) Section 2(1)—

(a) definition of ***debt security contract***;

(b) definition of ***equity contract***;

(c) definition of ***other commodity contract***;

(d) definition of ***potential exposure***;

(e) definition of ***precious metal contract***;

(f) definition of ***shortcut method***—

Repeal the definitions.

(31) Section 2(1)—

Add in alphabetical order

"***credit-related derivative contract*** means—

(a) a credit derivative contract; or

(b) a derivative contract (other than a credit derivative contract) where—

(i) the value of the contract is primarily driven by the credit risk of, or any change in the credit risk of, one or more than one underlying asset or financial instrument designated in the contract; and

(ii) the credit risk or the change may be measured in terms of one or more than one index or indicator of credit risk;

direct client, in relation to a clearing member of a CCP, means a party that has a contractual arrangement with the clearing member under which—

(a) the party is able to clear its transactions through the CCP; and

(b) the clearing member either—

(i) acts as the financial intermediary between the party and the CCP; or

(ii) guarantees the performance of the party to the CCP;

higher level client—see section 2AA;

indirect client, in relation to a CCP, means a party (other than a clearing member of the CCP and a direct client of any clearing member of the CCP) that—

(a) clears its transactions through the CCP by using the clearing services provided by a direct client of a clearing member of the CCP or the customer of such a direct client; or

(b) provides clearing services to enable its customers to clear their transactions through the CCP;

inflation derivative contract means a derivative contract the value of which changes in response to changes in one or more measures of inflation;

lower level client—see section 2AA;

multi-level client structure—see section 2AA;

offsetting transaction—

(a) in relation to the clearing of a contract or transaction (***principal trade***) of a direct client by a CCP that does not involve a multi-level client structure, means a transaction between the CCP and a clearing member of the CCP entered into for the purpose of offsetting a CCP-related transaction—

(i) between the clearing member and the client; and

(ii) entered into in respect of the principal trade; or

(b) in relation to the clearing of a principal trade of a lower level client by a CCP that involves a multi-level client structure—see section 2AA;

SA-CCR approach means the standardized (counterparty credit risk) approach;

SA-CCR 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 (net of specific provisions if the STC approach or BSC approach is used) to the counterparty calculated by using the SA-CCR approach; and

(b) the risk-weight applicable to the outstanding default risk exposure determined by using the STC approach, BSC approach or IRB approach, as the case requires;

standardized (counterparty credit risk) approach means the method of calculating default risk exposures in respect of derivative contracts set out in Division 1A of Part 6A;

unsegregated collateral means collateral that—

(a) is posted by an authorized institution or another person, as the case may be, for—

(i) its transaction that is cleared by a CCP; or

(ii) a bilateral transaction entered into by the institution or the person with a counterparty; and

(b) is not held on a bankruptcy remote basis;".

2. Section 2AA added

After section 2—

Add

"**2AA. Interpretation: multi-level client structure, etc.**

(1) For the purposes of these Rules, a multi-level client structure is a structure comprising clients only and in which an indirect client (***client A)*** may have its contract or transaction (***principal trade***) cleared by a CCP via the clearing services provided by one or more other clients (each such other client, ***client B***) within the structure.

(2) For the purposes of these Rules, in relation to the clearing of a principal trade by a CCP that involves such a structure—

(a) every client B is a higher level client;

(b) client A is a lower level client;

(c) a CCP-related transaction is a derivative contract or SFT between the lower level client and a higher level client entered into for the purpose of clearing the principal trade where—

(i) the higher level client acts on behalf of the lower level client as an intermediary between the lower level client and another higher level client or the clearing member concerned; and

(ii) the derivative contract or SFT is directly related to an offsetting transaction between the CCP and the clearing member entered into for the purpose of clearing the principal trade; and

(d) an offsetting transaction is a transaction—

(i) between—

(A) the clearing member and the CCP;

(B) the clearing member and a higher level client; or

(C) 2 higher level clients; and

(ii) entered into for the purpose of, directly or indirectly, offsetting the CCP-related transaction.".

3. Section 10A amended (authorized institution must only use current exposure method, etc. to calculate its counterparty credit risk)

(1) Section 10A, heading—

Repeal

"**current exposure method**"

Substitute

"**SA-CCR approach**".

(2) Section 10A(1)(a)—

Repeal

"current exposure method"

Substitute

"SA-CCR approach".

(3) Section 10A(1)—

Repeal paragraph (b)

Substitute

"(b) use the methods set out in Division 2C of Part 6A to calculate the institution's default risk exposures in respect of SFTs; and".

(4) Section 10A(1)(c)(i)—

Repeal

"and credit derivative contracts".

(5) Section 10A—

Repeal subsection (2)

Substitute

"(2) An authorized institution may choose to—

(a) use the IMM(CCR) approach to calculate its default risk exposures in respect of derivative contracts, SFTs or long settlement transactions if it has an IMM(CCR) approval for those contracts or transactions; or

(b) use the current exposure method to calculate its default risk exposures in respect of derivative contracts if it meets all of the conditions set out in section 10E.".

(6) Section 10A(4)(a)—

Repeal

"and credit derivative contracts".

(7) Section 10A(5)(a)—

Repeal

"current exposure method"

Substitute

"SA-CCR approach".

4. Section 10B amended (authorized institution may apply for approval to use IMM(CCR) approach to calculate its default risk exposures)

(1) Section 10B(5)—

Repeal

"current exposure method"

Substitute

"SA-CCR approach".

(2) Section 10B(7)—

Repeal

"current exposure method"

Substitute

"SA-CCR approach".

(3) Section 10B(9)(b)—

Repeal

"revert to the current exposure method"

Substitute

"switch to using the current exposure method, SA-CCR approach".

5. Section 10C amended (provisions supplementary to prescribed methods for calculation of CVA capital charge)

(1) Section 10C(1)(b)—

Repeal

"current exposure method"

Substitute

"SA-CCR approach".

(2) Section 10C(1)(c)—

Repeal

"current exposure method"

Substitute

"SA-CCR approach".

6. Section 10D amended (measures that may be taken by Monetary Authority if authorized institution using IMM(CCR) approach no longer satisfies specified requirements)

Section 10D(2)(a)—

Repeal

"current exposure method"

Substitute

"SA-CCR approach".

7. Section 10E added

After section 10D—

Add

"**10E. Conditions to be satisfied for use of current exposure method**

(1) Subject to subsections (2) and (3), an authorized institution may use the current exposure method to calculate the default risk exposures in respect of its derivative contracts if both of the following conditions are satisfied—

(a) the institution uses the BSC approach to calculate its credit risk for non-securitization exposures;

(b) as at the end date of each of the periods covered by the financial statements of the institution specified in subsection (4), the total notional amount of the derivative contracts of the institution (regardless of whether the contracts are recorded as the institution's assets or liabilities) does not exceed 10% of the aggregate of its total assets and total liabilities.

(2) If an authorized institution is required to calculate its capital adequacy ratio on a consolidated basis—

(a) the reference to the financial statements of the institution in subsection (1)(b) is construed to mean the financial statements of the institution's consolidation group;

(b) the reference to the derivative contracts of the institution in that subsection is construed to mean the derivative contracts of the institution's consolidation group; and

(c) the reference to the total assets and total liabilities of the institution in that subsection is construed to mean the total assets and total liabilities of the institution's consolidation group.

(3) For the purposes of subsection (2), if the scope of consolidation for preparing the consolidated financial statements of the institution is different from that for calculating its capital adequacy ratio—

(a) the institution must use the financial statements of the entities included in its consolidation group; and

(b) the institution may offset any inter-company balances with, and transactions between, members of its consolidation group.

(4) The financial statements specified for subsection (1)(b) are—

(a) subject to paragraph (b), those prepared for the 4 consecutive financial reporting periods (inclusive of both interim and annual financial reporting periods) of the institution immediately preceding the date on which the calculation of default risk exposure is performed; or

(b) if the Monetary Authority gives the institution a written notice specifying financial statements prepared for other financial reporting periods—the statements so specified.

(5) Despite subsection (1), the Monetary Authority may, by a written notice given to an authorized institution, require the institution to use the SA-CCR approach to calculate its default risk exposures if the Monetary Authority believes that, taking into account the nature of the institution's business, the use by the institution of the current exposure method would not adequately assess and reflect the counterparty default risk incurred by the institution.

(6) An authorized institution must comply with the requirements of a notice given to it under subsection (5).".

8. Section 16A amended (authorized institution must use Division 4 of Part 6A to calculate its credit risk for exposures to CCPs, etc.)

Section 16A(b), after "transactions"—

Add

"and offsetting transactions".

9. Section 51 amended (interpretation of Part 4)

(1) Section 51(1), definition of ***credit equivalent amount***—

Repeal

", means the credit equivalent amount of the exposure calculated under section 71"

Substitute

"that is not a default risk exposure, means the credit equivalent amount of the exposure calculated in accordance with section 71(1) or (2)".

(2) Section 51(1), definition of ***minimum holding period***—

Repeal

"an authorized institution, or by another person, for the institution's benefit"

Substitute

"a person, or by another person, for the first person's benefit".

(3) Section 51(1), definition of ***minimum holding period***, paragraphs (a), (b) and (c)—

Repeal

"institution" (wherever appearing)

Substitute

"first person".

(4) Section 51(1), definition of ***principal amount***, paragraph (b)—

Repeal subparagraphs (iii) and (iv)

Substitute

"(iii) subject to subparagraph (iv), in the case of an exposure in respect of a derivative contract, the notional amount of the contract;

(iv) in the case of an exposure in respect of a derivative contract where the stated notional amount of the contract is leveraged or enhanced by the structure of the contract, the effective notional amount of the contract calculated by taking into account the effect of the leverage or enhancement, as the case may be;".

(5) Section 51(1), definition of ***SFT risk-weighted amount***—

Repeal

everything after "calculated as the"

Substitute

"sum of the risk-weighted amounts of the default risk exposures across all the SFTs with the counterparty calculated in accordance with section 76A;".

(6) Section 51(1)—

(a) definition of ***non-qualifying reference obligation***;

(b) definition of ***qualifying reference obligation;***

(c) definition of ***standard supervisory haircut***—

Repeal the definitions.

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

(1) Section 52(3)(a)—

Repeal

"OTC derivative transactions, credit".

(2) Section 52(3)(a)(iii)—

Repeal

"CEM"

Substitute

"SA-CCR".

(3) Section 52(3)(ab)—

Repeal subparagraph (i)

(3A) Section 52(3)(ab)(ii), after "credit equivalent amount"—

Add

"of the exposure".

(4) Section 52(3)(d)—

Repeal

"OTC derivative transactions, credit".

(5) Section 52(3A)(b)—

Repeal

"CEM"

Substitute

"SA-CCR".

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

(1) Section 53(1)(b)(i)—

Repeal

"OTC derivative transactions, credit".

(2) Section 53(1)(b)—

Repeal subparagraph (ii)

Substitute

"(ii) in respect of unsegregated collateral posted by the institution for transactions or contracts booked in its trading book; and".

12. Section 64 amended (regulatory retail exposures)

(1) Section 64(2)(a)(ii)—

Repeal

", credit derivative contract".

(2) Section 64(2)(a)(ii)(A)—

Repeal

"or credit derivative contract".

13. Section 70A repealed (application of sections 71(2) and (3), 72 and 73(b) and (c))

Section 70A—

Repeal the section.

14. Section 71 amended (off-balance sheet exposures)

(1) Section 71(1), after "an off-balance sheet exposure"—

Add

"(other than default risk exposure)".

(2) Section 71(1)—

Repeal

"the off-balance sheet"

Substitute

"the".

(3) Section 71(1), Table 10, heading—

Repeal

"**OTC Derivative Transactions or Credit Derivative Contracts**"

Substitute

"**Default Risk Exposures**".

(4) Section 71—

Repeal subsections (2) and (3) and Table 11

Substitute

"(2) If—

(a) an authorized institution has posted unsegregated collateral to a counterparty for a transaction or contract booked in its banking book or trading book; and

(b) either—

(i) the collateral is not posted for a derivative contract or SFT; or

(ii) the collateral is posted for a derivative contract or SFT but is not captured in the calculation of default risk exposures under Division 1A, 2 or 2C of Part 6A,

the institution must calculate the credit equivalent amount of its off-balance sheet exposure to the counterparty in respect of the collateral as the product of the principal amount (without deduction of any specific provisions) of the collateral and a factor of (1 + H).

(3) For the purposes of subsection (2), H is the standard supervisory haircut applicable to the collateral, subject to the adjustment set out in section 92.

(4) [deleted]

(5) An authorized institution may deduct from the credit equivalent amount calculated in accordance with subsection (2) any specific provisions applicable to the exposure concerned.

(6) An authorized institution must calculate its default risk exposure in respect of derivative contracts or SFTs by using the approach or method set out in Division 1A, 2 or 2C of Part 6A, as the case requires.".

15. Section 72 substituted (provisions supplementary to section 71)

Section 72—

Repeal the section

Substitute

"**72. Provision supplementary to section 71(1)**

For the purposes of section 71(1), if—

(a) an off-balance sheet exposure of an authorized institution arises from a commitment in the form of a general banking facility that consists of 2 or more credit lines; and

(b) under each such credit line, the institution is obliged either to provide funds or create off-balance sheet exposures in the future,

the institution must assign a CCF to the exposure in accordance with item 9(a), (b) or (c) of Table 10 based on the original maturity of the commitment.".

16. Section 73 substituted (calculation of credit equivalent amount of other off-balance sheet exposures not specified in Table 10 or 11)

Section 73—

Repeal the section

Substitute

"**73. Calculation of credit equivalent amount of off-balance sheet exposures not covered by section 71(1), (2) or (6)**

(1) This section applies to an off-balance sheet exposure that is not any of the following—

(a) an off-balance sheet exposure the credit equivalent amount of which is calculated in accordance with section 71(1);

(b) an off-balance sheet exposure the credit equivalent amount of which is calculated in accordance with section 71(2);

(c) a default risk exposure mentioned in section 71(6).

(2) An authorized institution must calculate the credit equivalent amount of the off-balance sheet exposure by multiplying the principal amount of the exposure, after deducting any specific provisions applicable to the exposure, by—

(a) if a CCF applicable to the exposure is specified in Part 2 of Schedule 1—that CCF; or

(b) if no such CCF is specified—a CCF of 100%.".

17. Section 76A substituted (calculation of risk-weighted amount of default risk exposures in respect of SFTs)

Section 76A—

Repeal the section

Substitute

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

(1) If the default risk exposure of an authorized institution in respect of an SFT is calculated in accordance with section X53, the institution must calculate the risk-weighted amount of the

exposure in accordance with section 85, or sections 88 and 93 (with the net credit exposure reduced by any specific provisions made), as the case requires.

(2) If the default risk exposure of an authorized institution in respect of an SFT entered into with a counterparty is calculated in accordance with Division 2 of Part 6A, section X54 or X55, the institution must calculate the risk-weighted amount of the exposure (net of specific provisions, if applicable) by allocating the attributed risk-weight of the counterparty to the exposure.

(3) For the purposes of subsections (1) and (2), an authorized institution may reduce the risk-weighted amount by taking into account any recognized guarantee or recognized credit derivative contract applicable to the SFT in the manner set out in Divisions 9 and 10.".

18. Section 77 amended (recognized collateral)

(1) Section 77(ea)—

Repeal

"OTC derivative transactions, credit".

(2) Section 77(h)(ii)—

Repeal

"assumed".

19. Section 78 amended (approaches to use of recognized collateral)

(1) Section 78—

Repeal subsection (1)

Substitute

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

(2) Section 78, after subsection (1)—

Add

"(1A) Subject to subsections (1C) and (2), an authorized institution may take into account the credit risk mitigation effect of recognized credit risk mitigation in the form of collateral by using the simple approach or the comprehensive approach for the purposes of calculating the risk-weighted amounts of its default risk exposures only if—

(a) the collateral is recognized collateral; and

(b) the exposures are—

(i) default risk exposures in respect of SFTs calculated in accordance with section X53; or

(ii) default risk exposures specified for this subparagraph in subsection (1B).

(1B) A default risk exposure is one specified for subsection (1A)(b)(ii) if all of the following conditions are met—

(a) the exposure arises from one or more than one derivative contract entered into by an authorized institution with a counterparty under a multi-purpose banking facility granted by the institution that consists of 2 or more credit lines;

(b) the credit lines are secured by the same recognized collateral;

(c) subject to subsection (1D), it is impractical, inappropriate or misleading to include all or part of the recognized collateral in the calculation of the exposure under Division 1A or 2 of Part 6A.

(1C) An authorized institution may take into account the credit risk mitigation effect of the recognized collateral in relation to the default risk exposures mentioned in subsection

(1A)(b)(ii) only to the extent of the current market value, or the part of such value, of the collateral that is not included in the calculation of the exposures under Division 1A or 2 of Part 6A.

(1D) The condition in subsection (1B)(c) is not met if the only ground for not including all or part of the recognized collateral in the calculation of the default risk exposure under Division 1A or 2 of Part 6A is that it would result in a risk-weighted amount larger than that calculated by using the simple approach or the comprehensive approach.".

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

(1) Section 82(4)—

Repeal paragraphs (a) and (b).

(2) Section 82(4)(d), after "transaction"—

Add

"(other than derivative contract and repo-style transaction)".

21. Section 84 amended (calculation of risk-weighted amount of off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts)

(1) Section 84, heading—

Repeal

"**OTC derivative transactions or credit derivative contracts**"

Substitute

"**default risk exposures**".

(2) Section 84—

Repeal

"neither an OTC derivative transaction nor a credit derivative contract"

Substitute

"not a default risk exposure".

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

(1) Section 85, heading—

Repeal

"**OTC derivative transactions and credit derivative contracts**"

Substitute

"**default risk exposures**".

(2) Section 85(1)—

Repeal

everything before "by—

Substitute

"(1) An authorized institution must calculate the risk-weighted amount of its default risk exposure that is an exposure mentioned in section 78(1A)(b)(i) or (ii)".

(3) Section 85(1)(a)—

Repeal

"outstanding default risk exposure of the transaction"

Substitute

"amount of the default risk exposure in respect of an SFT or the outstanding default risk exposure calculated for a derivative contract".

(4) Section 85—

Repeal subsection (2).

23. Section 87 amended (calculation of net credit exposure of on-balance sheet exposures)

Section 87, Formula 2—

Repeal

"for the comprehensive approach to the treatment of recognized collateral" (wherever appearing).

24. Section 88 amended (calculation of net credit exposure of off-balance sheet exposures other than credit derivative contracts or OTC derivative transactions)

(1) Section 88, heading—

Repeal

"**credit derivative contracts or OTC derivative transactions**"

Substitute

"**default risk exposures in respect of derivative contracts**".

(2) Section 88—

Repeal

"a credit derivative contract or an OTC derivative transaction"

Substitute

"a default risk exposure in respect of derivative contracts".

(3) Section 88, Formula 3, heading—

Repeal

"**Credit Derivative Contract or OTC Derivative Transaction**"

Substitute

"**Default Risk Exposure in respect of Derivative Contracts**".

(4) Section 88, Formula 3—

Repeal

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

Substitute

"either of the following—

(a) if the off-balance sheet exposure is a default risk exposure mentioned in section 78(1A)(b)(i)—the default risk exposure; or

(b) in any other case—principal amount of the off-balance sheet exposure net of specific provisions, if any;".

(5) Section 88, Formula 3—

Repeal

"haircut applicable to the authorized institution's exposure to the obligor pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral"

Substitute

"either—

(a) if the off-balance sheet exposure is a default risk exposure mentioned in section 78(1A)(b)(i)—haircut applicable to the securities sold, lent or provided as collateral by the institution to the obligor under the SFT concerned; or

(b) in any other case—haircut applicable to the authorized institution's exposure to the obligor,

pursuant to the standard supervisory haircuts".

(5A) Section 88, Formula 3—

Repeal

"recognized collateral pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral"

Substitute

"recognized collateral pursuant to the standard supervisory haircuts".

(5B) Section 88, Formula 3—

Repeal

"currency mismatch, if any, pursuant to the standard supervisory haircuts for the comprehensive approach to the treatment of recognized collateral"

Substitute

"currency mismatch, if any, pursuant to the standard supervisory haircuts".

(6) Section 88, Formula 3—

Repeal

"CCF applicable to the off-balance sheet exposure."

Substitute

"either of the following—

(a) if the off-balance sheet exposure is a default risk exposure mentioned in section 78(1A)(b)(i)—100%; or

(b) in any other case—CCF applicable to the off-balance sheet exposure.".

25. Section 89 amended (calculation of net credit exposure of credit derivative contracts and OTC derivative transactions)

(1) Section 89, heading—

Repeal

"**credit derivative contracts and OTC derivative transactions**"

Substitute

"**default risk exposures in respect of derivative contracts**".

(2) Section 89—

Repeal

"its net credit exposure to a counterparty in respect of a credit derivative contract, or an OTC derivative transaction,"

Substitute

"the net credit exposure of its default risk exposure that is an exposure mentioned in section 78(1A)(b)(ii)".

(3) Section 89, Formula 4, heading—

Repeal

"**Credit Derivative Contract or OTC Derivative Transaction**"

Substitute

"**Derivative Contracts**".

(4) Section 89, Formula 4—

Repeal

"of the credit derivative contract or OTC derivative transaction, as the case may be,"

Substitute

"calculated for the derivative contracts concerned".

(5) Section 89, Formula 4—

Repeal

"for the comprehensive approach to the treatment of recognized collateral" (wherever appearing).

26. Section 90 amended (Haircuts)

Section 90, Formula 5—

Repeal

"for the comprehensive approach to the treatment of recognized collateral".

27. Section 91 amended (minimum holding periods)

(1A) Section 91, before subsection (1)—

Add

"(1A) For the purposes of section 87, 88, 89, 90, 94, 100 or 103 and subject to subsection (4), an authorized institution must, in order to determine whether adjustment of the standard supervisory haircuts applicable to an exposure and the recognized collateral provided in respect of the exposure under section 92 is needed, take the minimum holding period of the transaction giving rise to the exposure as—

(a) if the exposure is a default risk exposure mentioned in section 78(1A)(b)(ii)—the margin period of risk of the transaction determined in accordance with Part 6A;

(b) if the exposure is not a default risk exposure or is a default risk exposure mentioned in section 78(1A)(b)(i)—the minimum holding period determined in accordance with subsections (1), (2) and (3).".

(1) Section 91(1)—

Repeal

"shall, for the purposes of determining whether adjustment of the standard supervisory haircuts applicable to the recognized collateral and the exposure under section 92 is needed, take the assumed minimum holding periods to be as set out in Table 12 based on the type of the transaction giving rise to the exposure"

Substitute

"must determine the minimum holding period of the transaction giving rise to the exposure in accordance with Table 12 based on the type of transaction to which the transaction belongs".

(2) Section 91, Table 12, heading—

Repeal

"**Assumed Minimum**"

Substitute

"**Minimum**"

(3) Section 91, Table 12, column 2—

Repeal

"Assumed minimum"

Substitute

"Minimum**"**

(3A) Section 91(2)—

Repeal

"assumed".

(4) Section 91, after subsection (2)—

Add

"(3) If—

(a) an exposure is not subject to daily remargining; or

(b) an exposure and the recognized collateral provided in respect of the exposure are not subject to daily revaluation,

the minimum holding period of the transaction giving rise to the exposure must be calculated by using Formula 6.

Formula 6

Calculation of minimum holding period for circumstances set out in paragraphs (a) and (b)

$$\text{Minimum holding period} = N_R + (T_M - 1)$$

where—

N_R = actual number of days between each remargining or each revaluation; and

T_M = minimum holding period determined in accordance with subsections (1) and (2) for the transaction as if there were daily remargining or daily revaluation.

(4) When calculating the credit equivalent amount of an off-balance sheet exposure to a counterparty arising from unsegregated collateral posted to the counterparty for mitigating the credit risk of a contract or transaction, an authorized institution must, for the purpose of determining the haircut applicable to the collateral—

(a) determine the minimum holding period or margin period of risk of the contract or transaction in accordance with subsections (1), (2) and (3) or Part 6A, as the case requires; and

(b) take the minimum holding period of the collateral as the minimum holding period or margin period of risk determined under paragraph (a).".

28. Section 92 substituted

Section 92—

Repeal the section

Substitute

"92. Adjustment of standard supervisory haircuts in certain circumstances

When an authorized institution uses the standard supervisory haircut to take into account the volatility of the value of an exposure or collateral, if—

(a) the minimum holding period of the transaction giving rise to the exposure determined in accordance with section 91(1A), (1), (2) and (3) is not 10 business days; or

(b) the minimum holding period of the collateral determined in accordance with section 91(4) is not 10 business days,

the institution must adjust the standard supervisory haircut by using Formula 32 in section 3 of Schedule 7.".

29. Sections repealed

Sections 94A, 95, 96 and 97—

Repeal the sections.

30. Section 100 amended (capital treatment of recognized guarantees and recognized credit derivative contracts)

(1) Section 100(4), Formula 11—

Repeal

"for the comprehensive approach to the treatment of recognized collateral".

(2) Section 100(10)—

Repeal paragraphs (a) and (b)

Substitute

"(a) a risk-weight of 2% if—

(i) the institution is a clearing member of the qualifying CCP;

(ii) the institution is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) are met; or

(iii) the institution is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution;

(b) a risk-weight of 4% if the institution is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)) are met; or

(c) a risk-weight of 4% if the institution is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution.".

31. Section 101 amended (provisions supplementary to section 100)

Section 101(6A)—

Repeal paragraphs (a) and (b)

Substitute

"(a) "a risk-weight of 2%" if—

(i) the authorized institution concerned is a clearing member of the qualifying CCP;

(ii) the authorized institution concerned is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) are met; or

(iii) the authorized institution concerned is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section

226ZA(6), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution;

(b) "a risk-weight of 4%" if the authorized institution concerned is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)) are met; or

(c) "a risk-weight of 4%" if the authorized institution concerned is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution.".

32. Section 103 amended (maturity mismatches)

(1) Section 103(1)—

Repeal

", OTC derivative transactions and credit"

Substitute

"and".

(2) Section 103(1), Formula 12, after "standard supervisory haircuts"—

Add

"(subject to the adjustment as set out in section 92)".

33. Section 105 amended (interpretation of Part 5)

(1) Section 105, definition of ***credit equivalent amount***—

Repeal

", means the credit equivalent amount of the exposure calculated under section 118"

Substitute

"that is not a default risk exposure, means the credit equivalent amount of the exposure calculated in accordance with section 118(1) or (2)".

(2) Section 105, definition of ***principal amount***, paragraph (b)—

Repeal subparagraphs (iii) and (iv)

Substitute

"(iii) subject to subparagraph (iv), in the case of an exposure in respect of a derivative contract, the notional amount of the contract;

(iv) in the case of an exposure in respect of a derivative contract where the stated notional amount of the contract is leveraged or enhanced by the structure of the contract, the effective notional amount of the contract calculated by taking into account the effect of the leverage or enhancement, as the case may be;".

(3) Section 105, definition of ***SFT risk-weighted amount***—

Repeal

everything after "calculated as the"

Substitute

"sum of the risk-weighted amounts of the default risk exposures across all the SFTs with the counterparty calculated in accordance with section 123A;".

(4) Section 105—

(a) definition of ***non-qualifying reference obligation***;

(b) definition of ***qualifying reference obligation***—

Repeal the definitions.

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

(1) Section 106(3)(a)—

Repeal

"OTC derivative transactions, credit".

(2) Section 106(3)(a)(iii), before ", the SFT"—

Add

"or SA-CCR risk-weighted amount, as the case requires".

(3) Section 106(3)(ab)—

Repeal subparagraph (i)

(3A) Section 106(3)(ab)(ii), after "credit equivalent amount"—

Add

"of the exposure".

(4) Section 106(3)(c)—

Repeal

"OTC derivative transactions, credit".

(5) Section 106(4)(b)—

Repeal

"CEM"

Substitute

"SA-CCR".

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

(1) Section 107(1)(b)(i)—

Repeal

"OTC derivative transactions, credit".

(2) Section 107(1)(b)—

Repeal subparagraph (ii)

Substitute

"(ii) in respect of unsegregated collateral posted by the institution for transactions or contracts booked in its trading book; and".

36. Section 117B repealed (application of sections 118(2) and (3), 119 and 120(b) and (c))

Section 117B—

Repeal the section.

37. Section 118 amended (off-balance sheet exposures)

(1) Section 118(1), after "an off-balance sheet exposure"—

Add

"(other than default risk exposure)".

(2) Section 118(1)—

Repeal

"the off-balance sheet"

Substitute

"the".

(3) Section 118(1), Table 14, heading—

Repeal

"**OTC Derivative Transactions or Credit Derivative Contracts**"

Substitute

"**Default Risk Exposures**".

(4) Section 118—

Repeal subsections (2) and (3) and Table 15

Substitute

"(2) If—

(a) an authorized institution has posted unsegregated collateral to a counterparty for a transaction or contract booked in its banking book or trading book; and

(b) either—

(i) the collateral is not posted for a derivative contract or SFT; or

(ii) the collateral is posted for a derivative contract or SFT but is not captured in the calculation of default risk exposure under Division 1A, 2, 2B or 2C of Part 6A,

the institution must treat the principal amount of the collateral, net of specific provisions, as the credit equivalent amount of its off-balance sheet exposure to the counterparty in respect of the collateral.

(3) An authorized institution must calculate its default risk exposure in respect of derivative contracts or SFTs by using the approach or method set out in Division 1A, 2, 2B or 2C of Part 6A, as the case requires.".

38. Section 119 substituted (provisions supplementary to section 118)

Section 119—

Repeal the section

Substitute

"**119. Provision supplementary to section 118(1)**

For the purposes of section 118(1), if—

(a) an off-balance sheet exposure of an authorized institution arises from a commitment in the form of a general banking facility that consists of 2 or more credit lines; and

(b) under each such credit line, the institution is obliged either to provide funds or create off-balance sheet exposures in the future,

the institution must assign a CCF to the exposure in accordance with item 9(a), (b) or (c) of Table 14 based on the original maturity of the commitment.".

39. Section 120 substituted (calculation of credit equivalent amount of other off-balance sheet exposures not specified in Table 14 or 15)

Section 120—

Repeal the section

Substitute

"**120. Calculation of credit equivalent amount of off-balance sheet exposures not covered by section 118(1), (2) or (3)**

(1) This section applies to an off-balance sheet exposure that is not any of the following—

(a) an off-balance sheet exposure the credit equivalent amount of which is calculated in accordance with section 118(1);

(b) an off-balance sheet exposure the credit equivalent amount of which is determined in accordance with section 118(2);

(c) a default risk exposure mentioned in section 118(3).

(2) An authorized institution must calculate the credit equivalent amount of the off-balance sheet exposure by multiplying the principal amount of the exposure, after deducting any specific provisions applicable to the exposure, by—

(a) if a CCF applicable to the exposure is specified in Part 2 of Schedule 1—that CCF; or

(b) if no such CCF is specified—a CCF of 100%.".

40. Section 123A substituted (calculation of risk-weighted amount of default risk exposures in respect of SFTs)

Section 123A—

Repeal the section

Substitute

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

(1) If the default risk exposure of an authorized institution in respect of an SFT is calculated in accordance with section X53, the institution must calculate the risk-weighted amount of the exposure in accordance with section 129.

(2) If the default risk exposure of an authorized institution in respect of an SFT entered into with a counterparty is calculated by using the IMM(CCR) approach, the institution must calculate the risk-weighted amount of the exposure (net of specific provisions, if applicable) by allocating the attributed risk-weight of the counterparty to the exposure.

(3) For the purposes of subsections (1) and (2), an authorized institution may reduce the risk-weighted amount by taking into account any recognized guarantee or recognized credit derivative contract applicable to the SFT in the manner set out in Divisions 7 and 8.".

41. Section 124 amended (recognized collateral)

Section 124(ea)—

Repeal

"OTC derivative transactions, credit".

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

(1) Section 126(1)—

Repeal subsection (1)

Substitute

"(1) An authorized institution may, in respect of its exposures (other than default risk exposures), take into account the credit risk mitigation effect of recognized collateral in the calculation of the risk-weighted amounts of the exposures only in accordance with section 127 or 128, as the case requires.

(1A) Subject to subsection (1C), an authorized institution may, in respect of its default risk exposures, take into account the credit risk mitigation effect of recognized credit risk

mitigation in the form of collateral in the calculation of the risk-weighted amounts of the exposures in accordance with section 129 only if—

(a) the collateral is recognized collateral; and

(b) the exposures are—

(i) default risk exposures in respect of derivative contracts calculated by using the current exposure method;

(ii) default risk exposures in respect of SFTs calculated in accordance with section X53; or

(iii) default risk exposures specified for this subparagraph in subsection (1B).

(1B) A default risk exposure is one specified for subsection (1A)(b)(iii) if all of the following conditions are met—

(a) the exposure arises from one or more than one derivative contract entered into by an authorized institution with a counterparty under a multi-purpose banking facility granted by the institution that consists of 2 or more credit lines;

(b) the credit lines are secured by the same recognized collateral;

(c) subject to subsection (1D), it is impractical, inappropriate or misleading to include all or part of the recognized collateral in the calculation of the exposure under Division 1A or 2 of Part 6A.

(1C) An authorized institution may take into account the credit risk mitigation effect of the recognized collateral in relation to the default risk exposures mentioned in subsection (1A)(b)(iii) only to the extent of the current market value, or the part of such value, of the collateral that is not included in the calculation of the exposures under Division 1A or 2 of Part 6A.

(1D) The condition in subsection (1B)(c) is not met if the only ground for not including all or part of the recognized collateral in the calculation of the default risk exposure under Division 1A or 2 of Part 6A is that it would result in a risk-weighted amount larger than that calculated in accordance with section 129.

(1E) However, the calculation in accordance with section 127, 128 or 129 is subject to subsections (2), (3) and (4).".

(2) Section 126—

Repeal subsection (3)

Substitute

"(3) An authorized institution must, if the exposure and the recognized collateral have currency mismatch, reduce the value of the collateral by a standard haircut of 8%.".

43. Section 128 amended (calculation of risk-weighted amount of off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts)

(1) Section 128, heading—

Repeal

"**OTC derivative transactions or credit derivative contracts**"

Substitute

"**default risk exposures**".

(2) Section 128—

Repeal

"neither an OTC derivative transaction nor a credit derivative contract"

Substitute

"not a default risk exposure".

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

(1) Section 129, heading—

Repeal

"**OTC derivative transactions and credit derivative contracts**"

Substitute

"**default risk exposures**".

(2) Section 129(1)—

Repeal

everything before "by—"

Substitute

"(1) An authorized institution must calculate the risk-weighted amount of its default risk exposure that is an exposure mentioned in section 126(1A)(b)(i), (ii) or (iii)".

(3) Section 129(1)(a)—

Repeal

"outstanding default risk exposure of the transaction"

Substitute

"amount of the default risk exposure in respect of an SFT or the outstanding default risk exposure calculated for a derivative contract".

(4) Section 129—

Repeal subsection (2).

45. Sections repealed

Sections 130A and 131—

Repeal the sections.

46. Section 134 amended (capital treatment of recognized guarantees and recognized credit derivative contracts)

Section 134(7)—

Repeal paragraphs (a) and (b)

Substitute

"(a) a risk-weight of 2% if—

(i) the institution is a clearing member of the qualifying CCP;

(ii) the institution is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) are met; or

(iii) the institution is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution;

(b) a risk-weight of 4% if the institution is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)) are met; or

(c) a risk-weight of 4% if the institution is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution.".

47. Section 135 amended (provisions supplementary to section 134)

Section 135(6A)—

Repeal paragraphs (a) and (b)

Substitute

"(a) "a risk-weight of 2%" if—

(i) the authorized institution concerned is a clearing member of the qualifying CCP;

(ii) the authorized institution concerned is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) are met; or

(iii) the authorized institution concerned is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution;

(b) "a risk-weight of 4%" if the authorized institution concerned is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)) are met; or

(c) "a risk-weight of 4%" if the authorized institution concerned is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution.".

48. Section 137 amended (maturity mismatches)

Section 137(1)—

Repeal

"OTC derivative transactions and credit".

49. Section 139 amended (interpretation of Part 6)

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

Repeal

everything after "institution"

Substitute

"that is not a default risk exposure, means the value obtained by multiplying the principal amount of the exposure by the applicable CCF;".

(2) Section 139(1), definition of ***expected loss amount***—

Repeal

"OTC derivative transaction or credit".

(3) Section 139(1), definition of ***principal amount***—

Repeal paragraph (b)(i) and (ii).

(4) Section 139(1), definition of ***SFT risk-weighted amount***—

Repeal

everything after "calculated as the"

Substitute

"sum of the risk-weighted amounts of the default risk exposures across all the SFTs with the counterparty calculated in accordance with section 202;".

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

(1) Section 140(1C)—

Repeal

"OTC derivative transactions, credit".

(2) Section 140(1C)(a)(ii), (b)(ii) and (c)(i)—

Repeal

"CEM"

Substitute

"SA-CCR".

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

Section 140A(1)—

Repeal

"164A, 165, 166, 179, 180, 180A"

Substitute

"165, 166, 179, 180".

52. Section 141 amended (exposures to be covered)

(1) Section 141(1)(b)(i)—

Repeal

"OTC derivative transactions, credit".

(2) Section 141(1)(b)—

Repeal subparagraph (ii)

Substitute

"(ii) in respect of unsegregated collateral posted by the institution for transactions or contracts booked in its trading book.".

53. Section 145 amended (equity exposures)

Section 145(1)(b)(ii)—

Repeal

"equity"

Substitute

"equity-related derivative".

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

Section 156(9)(a) and (b)—

Repeal

"OTC derivative transactions or credit".

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

Section 160(3), Formula 19——

Repeal

"for the comprehensive approach to treatment of recognized collateral" (wherever appearing).

56. Section 163 amended (exposure at default under foundation IRB approach—on-balance sheet exposures and off-balance sheet exposures other than OTC derivative transactions and credit derivative contracts)

(1) Section 163, heading—

Repeal

"**OTC derivative transactions and credit derivative contracts**"

Substitute

"**default risk exposures**".

(2) Section 163(2), after "an off-balance sheet exposure"—

Add

"(other than default risk exposure)".

(3) Section 163, Table 20, heading—

Repeal

"**OTC Derivative Transactions or Credit Derivative Contracts**"

Substitute

"**Default Risk Exposures**".

(4) Section 163, before subsection (3)—

Add

"(2A) Where an authorized institution that uses the foundation IRB approach has an off-balance sheet exposure to a counterparty arising from unsegregated collateral posted to the counterparty, if—

(a) the collateral is posted for a transaction or contract booked in the institution's banking book or trading book; and

(b) either—

(i) the transaction or contract is not a derivative contract or SFT; or

(ii) the transaction or contract is a derivative contract or SFT but the collateral is not captured in the calculation of default risk exposures under Division 1A, 2 or 2C of Part 6A,

the institution must estimate the EAD of the off-balance sheet exposure as the product of the principal amount of the collateral and a factor of (1 + H).

(2B) For the purposes of subsection (2A), H is the standard supervisory haircut applicable to the collateral, subject to the adjustment set out in section 3 of Schedule 7 with the minimum holding period applicable to the collateral determined in the same manner as set out in section 91(4).".

57. Section 164 amended (exposure at default under advanced IRB approach—on-balance sheet exposures and off-balance sheet exposures other than OTC derivative transactions and credit derivative contracts)

(1) Section 164, heading—

Repeal

"**OTC derivative transactions and credit derivative contracts**"

Substitute

"**default risk exposures**".

(2) Section 164—

Repeal subsection (2)

Substitute

"(2) An authorized institution that uses the advanced IRB approach must—

(a) estimate the EAD of an off-balance sheet exposure of the institution specified in column 2 of Table 20 in accordance with subsections (3) and (4); and

(b) estimate the EAD of an off-balance sheet exposure of the institution specified in subsection (2A) in accordance with subsections (4) and (4A).".

(2A) Section 164, after subsection (2)—

Add

"(2A) The exposure is an off-balance sheet exposure to a counterparty arising from unsegregated collateral posted to the counterparty where—

(a) the collateral is posted for a transaction or contract booked in the institution's banking book or trading book; and

(b) either—

(i) the transaction or contract is not a derivative contract or SFT; or

(ii) the transaction or contract is a derivative contract or SFT but the collateral is not captured in the calculation of default risk exposures under Division 1A, 2 or 2C of Part 6A.".

(3) Section 164, after subsection (4)—

Add

"(4A) The EAD for an authorized institution's off-balance sheet exposure estimated under subsection (2)(b) must not be lower than the principal amount of the collateral concerned.".

58. Section 164A repealed (application of sections 165 and 166(b) and (c))

Section 164A—

Repeal the section.

59. Section 165 amended (exposure at default under foundation IRB approach or advanced IRB approach—OTC derivative transactions and credit derivative contracts)

Section 165—

Repeal the section

Substitute

"**165. Exposure at default under foundation IRB approach or advanced IRB approach—default risk exposures in respect of derivative contracts**

An authorized institution that uses the foundation IRB approach or advanced IRB approach must determine the outstanding default risk exposure in respect of derivative contracts booked in the banking book or trading book of the institution based on the default risk exposure calculated for the contracts by using the SA-CCR approach or the IMM(CCR) approach, as the case requires.".

60. Section 166 substituted (exposure at default under foundation IRB approach or advanced IRB approach—other off-balance sheet exposures not specified in Table 11 or 20)

Section 166—

Repeal the section

Substitute

"**166. Exposure at default under foundation IRB approach or advanced IRB approach—off-balance sheet exposures not covered by sections 163, 164, 165 and 202**

(1) This section applies to an off-balance sheet exposure that is not any of the following—

(a) an off-balance sheet exposure specified in column 2 of Table 20;

(b) an off-balance sheet exposure the EAD of which is estimated in accordance with section 163(2A) or 164(2)(b);

(c) a default risk exposure mentioned in section 165 or 202.

(2) An authorized institution that uses the foundation IRB approach or advanced IRB approach must, in estimating the EAD of its off-balance sheet exposure, calculate the credit equivalent amount of the exposure—

(a) by applying—

(i) if a CCF applicable to the exposure is specified in Part 2 of Schedule 1—that CCF; or

(ii) if no such CCF is specified—a CCF of 100%; and

(b) in accordance with section 163 or 164, as the case requires, with all necessary modifications.".

61. Section 168 amended (maturity under advanced IRB approach)

(1) Section 168(1)—

Repeal

"such that"

Substitute

"as follows".

(2) Section 168(1)—

Repeal paragraph (d)

Substitute

"(d) subject to paragraphs (ba) and (bb), if the exposure is a default risk exposure resulting from the netting of nettable derivative contracts, the M of the exposure is the greater of—

(i) the weighted average maturity of the contracts (using the notional amount of each contract for weighting the maturity of the contracts); or

(ii) one year.".

(3) Section 168(4)(c)(i)—

Repeal

"OTC derivative transactions, credit".

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

Repeal

"an OTC derivative transaction, credit"

Substitute

"a".

62. Section 180 amended (exposure at default—off-balance sheet exposures other than OTC derivative transactions and credit derivative contracts)

Section 180, heading—

Repeal

"**OTC derivative transactions and credit derivative contracts**"

Substitute

"**default risk exposures**".

63. Section 180A repealed (application of sections 181 and 182(b) and (c))

Section 180A—

Repeal the section.

64. Section 181 amended (exposure at default—OTC derivative transactions and credit derivative contracts)

(1) Section 181, heading—

Repeal

"**OTC derivative transactions and credit derivative contracts**"

Substitute

"**default risk exposures in respect of derivative contracts**".

(2) Section 181—

Repeal

everything after "retail exposures"

Substitute

"that are default risk exposures in respect of derivative contracts as it applies to the institution's estimation of the EAD of its corporate, sovereign and bank exposures that are default risk exposures in respect of derivative contracts.".

65. Section 182 substituted (exposure at default—other off-balance sheet exposures not specified in Table 11 or 20)

Section 182—

Repeal the section

Substitute

"182. Exposure at default—off-balance sheet exposures not covered by sections 180, 181 and 202

(1) This section applies to an off-balance sheet exposure that is not any of the following—

(a) an off-balance sheet exposure specified in column 2 of Table 20;

(b) a default risk exposure mentioned in section 181 or 202.

(2) An authorized institution that uses the retail IRB approach must, in estimating the EAD of its off-balance sheet exposure, calculate the credit equivalent amount of the exposure—

(a) by applying—

(i) if a CCF applicable to the exposure is specified in Part 2 of Schedule 1—that CCF; or

(ii) if no such CCF is specified—a CCF of 100%; and

(b) in accordance with section 180, with all necessary modifications.".

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

Section 194(1)—

Repeal

"164A,".

67. Section 202 amended (securities financing transactions)

(1) Section 202(1)—

Repeal

"section 76A(4), (5), (6) and (7)"

Substitute

"Division 2C of Part 6A".

(2) Section 202(2)—

Repeal

", 76 and 76A(2)"

Substitute

"and 76 and Division 2 of Part 6A".

(3) Section 202(3)—

Repeal

"section 76A(4), (5), (6) and (7)"

Substitute

"Division 2C of Part 6A".

(4) Section 202(6)—

Repeal

"section 76A(2) or 76A(4), (5), (6) and (7)"

Substitute

"Division 2 or 2C of Part 6A".

68. Section 203 amended (credit risk mitigation—general)

(1) Section 203(1)—

Repeal

"and (1B)"

Substitute

", (1AA) and (1B)".

(2) Section 203, after subsection (1A)—

Add

"(1AA) Subject to subsection (1AC), an authorized institution may, in respect of its default risk exposures, take into account the credit risk mitigating effect of recognized credit risk mitigation in the form of collateral in accordance with this Division when calculating the risk-weighted amounts of the exposures only if—

(a) the collateral is recognized collateral; and

(b) the exposures are—

(i) default risk exposures in respect of SFTs that are not nettable calculated in accordance with section X53; or

(ii) default risk exposures specified for this subparagraph in subsection (1AB).

(1AB) A default risk exposure is one specified for subsection (1AA)(b)(ii) if all of the following conditions are met—

(a) the exposure arises from one or more than one derivative contract entered into by an authorized institution with a counterparty under a multi-purpose banking facility granted by the institution that consists of 2 or more credit lines;

(b) the credit lines are secured by the same recognized collateral;

(c) subject to subsection (1AD), it is impractical, inappropriate or misleading to include all or part of the recognized collateral in the calculation of the exposure under Division 1A or 2 of Part 6A.

(1AC) An authorized institution may take into account the credit risk mitigating effect of the recognized collateral in relation to the default risk exposures mentioned in subsection (1AA)(b)(ii) only to the extent of the current market value, or the part of such value, of the collateral that is not included in the calculation of the exposures under Division 1A or 2 of Part 6A.

(1AD) The condition in subsection (1AB)(c) is not met if the only ground for not including all or part of the recognized collateral in the calculation of the default risk exposure under Division 1A or 2 of Part 6A is that it would result in a risk-weighted amount larger than that calculated by taking into account the credit risk mitigating effect of the recognized collateral in accordance with this Division.".

69. Section 209 amended (recognized netting)

(1) Section 209(1)—

Repeal

"subsections (3A) and (3B)"

Substitute

"subsection (3B)".

(2) Section 209—

Repeal subsections (2), (3) and (3A)

Substitute

"(2) An authorized institution must—

(a) in calculating the EAD of its exposure to the counterparty in respect of the institution's on-balance sheet corporate, sovereign, bank, retail or other exposures—subject to subsection (4), apply sections 94 and 103, with all necessary modifications, to take into account the credit risk mitigating effect of recognized netting; and

(b) in calculating the EAD of its exposure to the counterparty in respect of derivative contracts—take into account the credit risk mitigating effect of recognized netting in accordance with Division 1A or 2 of Part 6A, as the case requires.

(3) Subject to subsection (3B), an authorized institution may only take into account the credit risk mitigating effect of recognized netting in respect of repo-style transactions by—

(a) in relation to a corporate, sovereign or bank exposure of an authorized institution that uses the foundation IRB approach—taking the default risk exposure (that is, E^*) calculated in accordance with section X54 or X55, as the case may be, as the EAD for inclusion into the risk-weight function specified in Formula 16 or 17, as the case requires; or

(b) in relation to a corporate, sovereign or bank exposure of an authorized institution that uses the advanced IRB approach or a retail exposure of an authorized institution that uses the retail IRB approach—

(i) taking the default risk exposure (that is, E^*) calculated in accordance with section X54 or X55, as the case may be, as the EAD for inclusion into the risk-weight function specified in Formula 16, 17, 21, 22 or 23, as the case requires; and

(ii) applying its estimate of LGD to the default risk exposure (that is, E^*) to the counterparty.".

(3) Section 209(3B), before "Part 6A"—

Add

"Division 2 of".

(4) Section 209(4)—

Repeal paragraph (a).

(5) Section 209(4)(b)—

Repeal

"sections 94 and 95"

Substitute

"section 94".

70. 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)

Section 216(3B)—

Repeal paragraphs (a) and (b)

Substitute

"(a) a risk-weight of 2% if—

(i) the institution is a clearing member of the qualifying CCP;

(ii) the institution is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) are met; or

(iii) the institution is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution;

(b) a risk-weight of 4% if the institution is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)) are met; or

(c) a risk-weight of 4% if the institution is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution.".

71. 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)

Section 217(5)—

Repeal paragraphs (a) and (b)

Substitute

"(a) a risk-weight of 2% if—

(i) the institution is a clearing member of the qualifying CCP;

(ii) the institution is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) are met; or

(iii) the institution is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution;

(b) a risk-weight of 4% if the institution is a direct client of a clearing member of the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)) are met; or

(c) a risk-weight of 4% if the institution is an indirect client within a multi-level client structure associated with the qualifying CCP, and all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)), with all necessary modifications, are met at every level of the chain of intermediaries between the qualifying CCP and the institution.".

72. Section 226A amended (interpretation of Part 6A)

(1) Section 226A, definition of ***spread gamma***—

Repeal the full stop

Substitute a semicolon.

(2) Section 226A—

Add in alphabetical order

"***initial margin***—

(a) means the collateral posted to a CCP by a clearing member or a client to mitigate the potential future exposure of the CCP to the clearing 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;

(b) if the collateral referred to in paragraph (a) exceeds the minimum amount that the clearing member or client is required to post and the CCP or clearing member may, where appropriate, prevent the clearing member or client from withdrawing the excess amount posted—includes the excess amount; and

(c) does not include—

(i) any default fund contributions made by the clearing member; and

(ii) any collateral posted by the clearing member or client that can be used by the CCP to mutualize losses among clearing members;

underlying exposure, in relation to a derivative contract, means the underlying asset, index, financial instrument, rate or thing as designated in the derivative contract;

variation margin, in relation to a margin agreement between 2 counterparties, means the collateral posted by one counterparty to another counterparty, or exchanged between the 2 counterparties, on a regular basis based on the price movement or change in value of one or more transactions subject to the agreement.".

73. Part 6A, Division 1A added

Part 6A, after Division 1—

Add

"Division 1A—SA-CCR Approach

X24. Interpretation of Division 1A

In this Division—

asset class means a class of derivative contracts referred to in section X26(1);

basis transaction means a derivative contract under which both legs of the contract are denominated in the same currency and the cash flows of the two legs depend on different risk factors from the same asset class;

hedging set means a hedging set of derivative contracts classified under section X26B, X26C, X26D, X26E or X26F;

independent collateral, in relation to derivative contracts in a netting set entered into between 2 counterparties—

(a) means the collateral posted (which may be posted outside the netting set) by one counterparty (***first counterparty***) to the other counterparty—

(i) that may be seized on the default of the first counterparty to offset losses on the netting set; and

(ii) the amount of which the first counterparty is required to post (which could be expressed as a fixed percentage of the notional amounts of the contracts) does not change in response to the changes in the market value of the contracts it secures; and

(b) includes initial margin and independent amount;

volatility transaction means a derivative contract the value of which is determined by reference to the volatility (historical or implied) of a risk factor.

X24A. Application of Division 1A

This Division applies to an authorized institution that uses the SA-CCR approach to calculate default risk exposures in respect of derivative contracts.

X25. Calculation of default risk exposure under SA-CCR approach

(1) Subject to subsections (2) and (3) and sections X25AA and X25A, an authorized institution must use Formula F1 to calculate the default risk exposure in respect of a netting set.

Formula F1

$$\text{Default risk exposure} = \alpha \times (\text{RC} + \text{PFE})$$

where—

(a) $\alpha = 1.4$;

(b) RC is the replacement cost of the netting set calculated in accordance with section X27 or X28, as the case requires; and

(c) PFE is the potential future exposure of the netting set calculated in accordance with section X31.

(2) If a single margin agreement applies to more than one netting set, in applying Formula F1 to those netting sets—

(a) the RC in the formula is the replacement cost of those netting sets calculated in accordance with section X29; and

(b) the PFE in the formula is the potential future exposure of those netting sets calculated in accordance with section X32.

(3) If a netting set is subject to more than one margin agreement, the authorized institution must, in calculating the RC and PFE in Formula F1, divide the netting set into sub-netting sets that align with the respective margin agreements.

X25AA. Determination of default risk exposure in certain circumstances

(1) Subject to subsections (2), (3) and (4), the amount of default risk exposure of a netting set subject to a margin agreement calculated under section X25 is capped at the amount that would have been calculated under that section, if the netting set were not subject to a margin agreement.

(2) If—

(a) a sold option falls within paragraph (a)(ii) of the definition of ***netting set;***

(b) the premium for the option has been fully paid upfront; and

(c) the option is not subject to any margin agreement,

the amount of default risk exposure of the option may be set to zero.

(3) If—

(a) a credit-related derivative contract with periodic premium payments falls within paragraph (a)(ii) of the definition of ***netting set***;

(b) the contract is not a sold option; and

(c) the contract is not subject to any margin agreement,

the amount of default risk exposure incurred by the protection seller in the contract calculated under section X25 is capped at the amount of the unpaid premium under the contract.

(4) For any credit-related derivative contract with periodic premium payments in a netting set (within the meaning of paragraph (a)(i) of the definition of ***netting set***), the cap referred to in subsection (3) may be applied to the amount of default risk exposure incurred by the protection seller in the contract calculated under section X25 if the contract is removed from the netting set and treated under this Division—

(a) as if it were not subject to recognized netting; and

(b) as a contract not subject to any margin agreement.

X25A. Treatments for certain credit derivative contracts

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

(a) both of the following conditions are met—

(i) the contract is a credit default swap in which the institution is the protection seller;

(ii) a regulatory capital is held in respect of the risk-weighted amount calculated in accordance with Part 4, 5, 6 or 7, as the case may be, for the institution's exposure to the credit risk of the reference obligation underlying the swap; or

(b) both of the following conditions are met—

(i) the institution is the protection buyer in the contract;

(ii) the credit risk mitigation effect of the contract has been recognized and taken into account under Divisions 9 and 10 of Part 4, Divisions 7 and 8 of Part 5, Division 10 of Part 6, or Division 5 of Part 7, for the purposes of calculating the risk-weighted amount of the exposure to which credit protection is provided by the contract.

X26. Classification of derivative contracts into asset classes

(1) Subject to subsections (2), (3) and (4), an authorized institution must classify each of the derivative contracts in a netting set into one of the following 5 asset classes—

(a) interest rate contracts;

(b) exchange rate contracts;

(c) credit-related derivative contracts;

(d) equity-related derivative contracts;

(e) commodity-related derivative contracts.

(2) In classifying a derivative contract, an authorized institution must—

(a) first determine the primary risk factor of the contract taking into account the sensitivities and volatility of the underlying exposure of the contract; and

(b) then—

(i) if the primary risk factor of the contract so determined is inflation—classify the contract into the asset class of interest rate contracts; or

(ii) in any other case—classify the contract into an asset class based on the contract's primary risk factor.

(3) The Monetary Authority may, by notice in writing given to an authorized institution, require the institution to classify a derivative contract into more than one asset class if the Monetary Authority considers that classifying the contract into only one asset class would significantly underestimate the default risk exposure in respect of the contract.

(4) An authorized institution given a notice under subsection (3) must, unless otherwise specified by the Monetary Authority in the notice—

(a) include the full position of the contract in each of the asset classes into which the contract is classified and determine the sign of each relevant risk factor in an appropriate manner; and

(b) determine, for each asset class, the supervisory delta adjustment applicable to the contract in respect of the position included in the asset class in accordance with section X41.

(5) An authorized institution must comply with the requirements of a notice given to it under subsection (3).

X26A. [deleted]

X26B. Further classification of derivative contracts in asset class of interest rate contracts

(1) All derivative contracts in a netting set that fall within the asset class of interest rate contracts must be further classified into different hedging sets as follows—

(a) non-inflation derivative contracts that are basis transactions referencing the same pair of risk factors must be grouped together to form a hedging set;

(b) inflation derivative contracts that are basis transactions referencing the same pair of risk factors must be grouped together to form a hedging set;

(c) non-inflation derivative contracts that are volatility transactions referencing interest rates of the same currency must be grouped together to form a hedging set;

(d) inflation derivative contracts that are volatility transactions referencing measures of inflation for the same currency must be grouped together to form a hedging set;

(e) non-inflation derivative contracts (other than basis transactions or volatility transactions) referencing interest rates of the same currency must be grouped together to form a hedging set; and

(f) inflation derivative contracts (other than basis transactions or volatility transactions) referencing measures of inflation for the same currency must be grouped together to form a hedging set.

(2) A derivative contract classified into a hedging set under subsection (1) must be further allocated into a maturity bucket in accordance with Table T1.

Table T1

Column 1	Column 2
End date (E) applicable to a derivative contract	**Maturity bucket (MB_k)**
< 1 year	k = 1
≧ 1 year and ≦5 years	k = 2
> 5 years	k = 3

(3) For the purposes of subsection (2), the value of E applicable to a derivative contract is determined in the same manner as the value of E in Formula F19 and, if applicable, section X44.

(4) In this section—

non-inflation derivative contract means a derivative contract in the asset class of interest rate contracts that is not an inflation derivative contract.

X26C. Further classification of derivative contracts in asset class of exchange rate contracts

All derivative contracts in a netting set that fall within the asset class of exchange rate contracts must be further classified into different hedging sets as follows—

(a) volatility transactions referencing the same currency pair, or the same currency index, must be grouped together to form a hedging set; and

(b) contracts (other than volatility transactions) referencing the same currency pair, or the same currency index, must be grouped together to form a hedging set.

X26D. Further classification of derivative contracts in asset class of credit-related derivative contracts

(1) All derivative contracts in a netting set that fall within the asset class of credit-related derivative contracts must be further classified into different hedging sets as follows—

(a) basis transactions referencing the same pair of risk factors must be grouped together to form a hedging set;

(b) all volatility transactions must be grouped together to form a hedging set; and

(c) all other contracts must be grouped together to form a hedging set.

(2) Derivative contracts classified into a hedging set under subsection (1) must be further classified into different subsets by grouping contracts within the hedging set that reference the same entity together to form a subset.

X26E. Further classification of derivative contracts in asset class of equity-related derivative contracts

(1) All derivative contracts in a netting set that fall within the asset class of equity-related derivative contracts must be further classified into different hedging sets as follows—

(a) basis transactions referencing the same pair of risk factors must be grouped together to form a hedging set;

(b) all volatility transactions must be grouped together to form a hedging set; and

(c) all other contracts must be grouped together to form a hedging set.

(2) Derivative contracts classified into a hedging set under subsection (1) must be further classified into different subsets by grouping contracts within the hedging set that reference the same entity together to form a subset.

X26F. Further classification of derivative contracts in asset class of commodity-related derivative contracts

(1) All derivative contracts in a netting set that fall within the asset class of commodity-related derivative contracts must be further classified into different hedging sets as follows—

(a) basis transactions referencing the same pair of risk factors must be grouped together to form a hedging set;

(b) volatility transactions must be grouped together and then be assigned into one of the following hedging sets for those transactions based on the underlying commodities of the transactions—

(i) energy;

(ii) metals;

(iii) agricultural products;

(iv) other commodities; and

(c) all other contracts must be grouped together and then be assigned into one of the following hedging sets for those contracts based on the underlying commodities of the contracts—

(i) energy;

(ii) metals;

(iii) agricultural products;

(iv) other commodities.

(2) Subject to subsection (3), derivative contracts classified into a hedging set under subsection (1) must be further classified into different subsets based on the type of commodity into which the underlying exposures of the contracts fall.

(3) In classifying contracts in the hedging set of energy (mentioned in subsection (1)(b)(i) or (c)(i)) into different subsets for subsection (2), there must be at least the following 2 subsets—

(a) electricity;

(b) oil and gas.

(4) If the Monetary Authority considers that an authorized institution is significantly exposed to the basis risk resulting from different products within a hedging set or subset, the Monetary Authority may, by notice in writing given to the institution, require the institution to use more refined definitions of commodity types to define the subsets in the hedging set.

(5) An authorized institution must comply with the requirement of a notice given to it under subsection (4).

X27. Calculation of replacement cost of netting set not subject to margin agreement

(1) This section applies to a netting set with a counterparty that—

(a) is not subject to a margin agreement; or

(b) is subject to a one-way margin agreement under which only the counterparty is entitled to receive collateral.

(2) The replacement cost of the netting set is calculated by using Formula F2.

Formula F2

$$RC = \max(V - C\ ;\ 0)$$

where—

(a) RC is the replacement cost of the netting set;

(b) V is the current mark-to-market value of the netting set; and

(c) C is the haircut value of net collateral held for the netting set, which is equal to the net amount of independent collateral for the netting set calculated in accordance with section X30(2).

X28. Calculation of replacement cost of netting set subject to margin agreement

(1) This section applies to a netting set that is subject to a margin agreement, other than a netting set referred to in section X25(2).

(2) The replacement cost of the netting set is calculated by using Formula F3.

Formula F3

$$RC = \max(V - C\ ;\ TH + MTA - NICA\ ;\ 0)$$

where—

(a) RC is the replacement cost of the netting set;

(b) V is the current mark-to-market value of the netting set;

(c) NICA is the net amount of independent collateral for the netting set calculated in accordance with section X30(2);

(d) C is the haircut value of net collateral held for the netting set, which is calculated as the sum of the net collateral amount calculated in accordance with section X30(1) and the NICA;

(e) TH is the margin threshold specified in the margin agreement; and

(f) MTA is the minimum transfer amount specified in the margin agreement.

X29. Calculation of replacement cost of netting sets subject to same margin agreement

The replacement cost of netting sets subject to the same margin agreement is calculated by using Formula F4.

Formula F4

$$RC_{MA} = \max\left\{\sum_{NS \in MA} \max\{V_{NS}\ ;\ 0\} - \max\{C_{MA}\ ;\ 0\}\ ;\ 0\right\} + X$$

$$X = \max\left\{\sum_{NS \in MA} \min\{V_{NS}\ ;\ 0\} - \min\{C_{MA}\ ;\ 0\}\ ;\ 0\right\}$$

where—

(a) RC_{MA} is the replacement cost of all netting sets subject to margin agreement MA;

(b) V_{NS} is the current mark-to-market value of netting set NS;

(c) C_{MA} is the haircut value of net collateral held under margin agreement MA, which is calculated as the sum of the net collateral amount calculated in accordance with section X30(1) and the net amount of independent collateral calculated in accordance with section X30(2); and

(d) $NS \in MA$ means netting set NS is covered by margin agreement MA.

X30. Calculation of haircut value of net collateral held

(1) In calculating the haircut value of net collateral held for the purposes of section X28 or X29, the net collateral amount referred to in those sections must be calculated by using Formula F5.

Formula F5

$$C = C_{received} \cdot [1 - H] - C_{posted} \cdot [1 + H]$$

where—

(a) C is the net collateral amount;

(b) $C_{received}$ is the current market value of collateral (including variation margin but excluding independent collateral) received from the counterparty concerned;

(c) C_{posted} is the current market value of collateral (including variation margin but excluding independent collateral) posted to the same counterparty; and

(d) H is the haircut determined by adjusting the standard supervisory haircut applicable to the collateral concerned to reflect the margin period of risk appropriate for the derivative contracts concerned determined in accordance with section X43A(2), (3), (4), (5) and (6).

(2) In calculating the haircut value of net collateral held for the purposes of section X27, X28 or X29, the net amount of independent collateral must be calculated by using Formula F5A.

Formula F5A

$$NICA = ICA_{received} \cdot [1 - H] - ICA_{posted} \cdot [1 + H]$$

where—

(a) NICA is the net amount of independent collateral;

(b) $ICA_{received}$ is the current market value of independent collateral received from the counterparty concerned (regardless of whether the collateral is segregated in a bankruptcy remote account or not);

(c) ICA_{posted} is the current market value of independent collateral posted to the same counterparty, where the collateral is unsegregated collateral; and

(d) H is the haircut determined by adjusting the standard supervisory haircut applicable to the collateral concerned to reflect—

(i) if the collateral is not received or posted under a margin agreement—a time horizon of 1 year; or

(ii) if the collateral is received or posted under a margin agreement—the margin period of risk appropriate for the derivative contracts concerned determined in accordance with section X43A(2), (3), (4), (5) and (6).

(3) Subject to subsection (4), collateral received from a counterparty may be included in the calculation under subsection (1) or (2) only if the collateral—

(a) falls within the description in section 80(1)(a), (b) or (c); and

(b) satisfies the requirements under section 77(a), (b), (c), (d), (e), (ea) and (f).

(4) Collateral included in the calculation of the haircut value of net collateral held must not contain any debt securities received from a counterparty that is a re-securitization exposure.

(5) All collateral posted (except independent collateral that is not unsegregated collateral) to a counterparty must be included in the calculation under subsection (1) or (2), regardless of whether the collateral meets the conditions set out in subsection (3)(a) and (b) or whether it is a re-securitization exposure.

(6) For the purposes of subsection (2), if the independent collateral is posted outside the netting set concerned and is available to offset not only losses on the netting set but also losses on exposures that are not default risk exposures, only that portion of the collateral assigned to the netting set may be included in the calculation under that subsection.

X31. Calculation of potential future exposure of netting set

(1) The potential future exposure of a netting set, other than that mentioned in section X25(2), is calculated by using Formula F6.

Formula F6

$$PFE = multiplier \cdot \sum_{a} AddOn^{(a)}$$

where—

(a) PFE is the potential future exposure of the netting set;

(b) multiplier is the amount calculated in accordance with subsection (2); and

(c) $AddOn^{(a)}$ is the add-on for derivative contracts in the netting set that fall within asset class a calculated in accordance with section X34.

(2) The multiplier in Formula F6 is calculated by using Formula F7.

Formula F7

$$multiplier = \min\left\{1; Floor + (1 - Floor) \cdot \exp\left(\frac{V - C}{2 \cdot (1 - Floor) \cdot \sum_{a} AddOn^{(a)}}\right)\right\}$$

where—

(a) V and C have the same meaning as in Formula F2 or F3, as the case requires;

(b) Floor is 5%;

(c) exp (...) is the exponential function; and

(d) $AddOn^{(a)}$ has the same meaning as in Formula F6.

X32. Calculation of potential future exposure of netting sets covered by same margin agreement

The potential future exposure of netting sets subject to the same margin agreement is calculated by using Formula F8.

Formula F8

$$PFE_{MA} = \sum_{NS \in MA} PFE_{NS}^{(unmargined)}$$

where—

(a) PFE_{MA} is the potential future exposure of all netting sets subject to margin agreement MA;

(b) $PFE_{NS}^{(unmargined)}$ is the potential future exposure of netting set NS calculated in accordance with section X31 in a manner as if netting set NS were not subject to a margin agreement; and

(c) $NS \in MA$ means netting set NS is covered by margin agreement MA.

X33. [Deleted]

X34. Calculation of add-on for derivative contracts in same asset class

(1) The add-on for derivative contracts in a netting set that fall within the same asset class is calculated by using—

(a) if the asset class is interest rate contracts, exchange rate contracts or commodity-related derivative contracts—Formula F9; or

(b) if the asset class is credit-related derivative contracts or equity-related derivative contracts—subject to subsection (2), Formula F10.

Formula F9

$$\text{AddOn}^{(a)} = \sum_{j} \text{AddOn}_{j}^{(a)}$$

where—

(a) $\text{AddOn}^{(a)}$ is the add-on for derivative contracts in the netting set that fall within asset class a; and

(b) $\text{AddOn}_{j}^{(a)}$ is the add-on for derivative contracts in the netting set that fall within hedging set j in asset class a, calculated in accordance with section X35, X36 or X39, as the case requires.

Formula F10

$$\text{AddOn}^{(a)} = \left[\left(\sum_{k} \rho_{k} \cdot \text{AddOn}(\text{Entity}_{k})\right)^{2} + \text{I}^{(a)}\right]^{0.5}$$

$$\text{I}^{(a)} = \sum_{k} (1 - (\rho_{k})^{2}) \cdot \left(\text{AddOn}\left(\text{Entity}_{k}\right)\right)^{2}$$

where—

(a) $\text{AddOn}^{(a)}$ is the add-on for derivative contracts in the netting set that fall within asset class a;

(b) $\text{AddOn}\left(\text{Entity}_{k}\right)$ is the add-on for a subset of the derivative contracts that reference entity k calculated in accordance with section X37 or X38, as the case requires; and

(c) ρ_{k} is the correlation factor applicable to entity k, which is—

(i) 50% if entity k is an entity, a single-name credit instrument or a single-name equity instrument; or

(ii) 80% if entity k is an index.

(2) If the contracts falling within the asset class of credit-related derivative contracts or equity-related derivative contracts form more than one hedging set, an authorized institution must calculate a separate add-on for each of the hedging sets by using Formula F10.

X35. Calculation of add-on for hedging sets in asset class of interest rate contracts

(1) An authorized institution must calculate the add-on for a hedging set in the asset class of interest rate contracts by using Formula F11.

Formula F11

$$\text{AddOn}_j^{(IR)} = SF_j^{(IR)} \cdot \text{Effective Notional}_j^{(IR)}$$

where—

(a) $\text{AddOn}_j^{(IR)}$ is the add-on for hedging set j in the asset class of interest rate contracts;

(b) $SF_j^{(IR)}$ is the supervisory factor for hedging set j, which is, subject to adjustments set out in section X45—

(i) 0.5% if hedging set j comprises interest rate contracts; or

(ii) [TBD][1] % if hedging set j comprises inflation derivative contracts; and

(c) $\text{Effective Notional}_j^{(IR)}$ is the effective notional amount for hedging set j calculated in accordance with subsection (2).

(2) An authorized institution may use either Formula F12 or Formula F13 to calculate $\text{Effective Notional}_j^{(IR)}$ in Formula F11.

Formula F12

$$\text{Effective Notional}_j^{(IR)} = \left[\left(D_{j1}^{(IR)}\right)^2 + \left(D_{j2}^{(IR)}\right)^2 + \left(D_{j3}^{(IR)}\right)^2 + A\right]^{0.5}$$

$$A = 1.4 \cdot D_{j1}^{(IR)} \cdot D_{j2}^{(IR)} + 1.4 \cdot D_{j2}^{(IR)} \cdot D_{j3}^{(IR)} + 0.6 \cdot D_{j1}^{(IR)} \cdot D_{j3}^{(IR)}$$

Formula F13

$$\text{Effective Notional}_j^{(IR)} = \left|D_{j1}^{(IR)}\right| + \left|D_{j2}^{(IR)}\right| + \left|D_{j3}^{(IR)}\right|$$

where—

$D_{j1}^{(IR)}$, $D_{j2}^{(IR)}$ and $D_{j3}^{(IR)}$ are the effective notional amounts calculated in accordance with section X40 respectively for maturity buckets 1, 2 and 3 (as determined in accordance with section X26B(2)) in hedging set j.

X36. Calculation of add-on for hedging sets in asset class of exchange rate contracts

An authorized institution must calculate the add-on for a hedging set in the asset class of exchange rate contracts by using Formula F14.

Formula F14

$$\text{AddOn}_j^{(FX)} = SF^{(FX)} \cdot \left|\text{Effective Notional}_j^{(FX)}\right|$$

where—

(a) $\text{AddOn}_j^{(FX)}$ is the add-on for hedging set j in the asset class of exchange rate contracts;

[1] Awaiting further guidance from the Basel Committee.

(b) $SF^{(FX)}$ is the supervisory factor for the asset class of exchange rate contracts, which is equal to 4%, subject to the adjustments set out in section X45; and

(c) $\text{Effective Notional}_j^{(FX)}$ is the effective notional amount for hedging set j calculated in accordance with section X40.

X37. Calculation of add-on for subsets in asset class of credit-related derivative contracts

(1) An authorized institution must calculate the add-on for derivative contracts in a subset (as classified in accordance with section X26D(2)) in the asset class of credit-related derivative contracts by using Formula F15.

Formula F15

$$\text{AddOn}(\text{Entity}_k) = SF_k^{(\text{Credit})} \cdot \text{Effective Notional}_k^{(\text{Credit})}$$

where—

(a) $\text{AddOn}(\text{Entity}_k)$ is the add-on for a subset comprising contracts that reference entity k;

(b) $SF_k^{(\text{Credit})}$ is the supervisory factor for entity k determined in accordance with subsection (2), subject to the adjustments set out in section X45; and

(c) $\text{Effective Notional}_k^{(\text{Credit})}$ is the effective notional amount for contracts in the subset calculated in accordance with section X40.

(2) For a relevant contract referencing entity k—

(a) subject to paragraph (b), if entity k is an entity or a single-name credit instrument, an authorized institution must—

(i) determine the credit quality grade applicable to the ECAI issuer rating (in the case of an entity) or the long-term ECAI issue specific rating (in the case of an instrument) of entity k by mapping the rating to a scale of credit quality grades in accordance with Table A in Schedule 6 (regardless of whether the entity or the issuer of the instrument is a sovereign or not); and

(ii) determine the supervisory factor applicable to entity k by mapping the resultant credit quality grade to the corresponding supervisory factor in accordance with Table T2.

Table T2

Credit quality grade	Supervisory factor (%)
1	0.38
2	0.42
3	0.54
4	1.06
5	1.6
6	6.0

(b) if entity k referred to in paragraph (a) is a corporate incorporated in India or a credit instrument issued by such a corporate, an authorized institution may—

(i) choose to determine the supervisory factor applicable to entity k by mapping the ECAI issuer rating (in the case of an entity) or the long-term ECAI issue specific rating (in the case of an instrument) of entity k to a scale of credit quality grades in accordance with Part 2 of Table C in Schedule 6; and

(ii) determine the supervisory factor applicable to entity k by mapping the resultant credit quality grade to the corresponding supervisory factor in accordance with Table T3.

Table T3

Credit quality grade	Supervisory factor (%)
1	0.38
2	0.42
3	0.54
4	1.06
5 (and the ECAI rating is CARE BB-, CARE BB- (Is), CRISIL BB-, [ICRA] BB-, Ir BB- or above)	1.6
5 (and the ECAI rating is below CARE BB-, CARE BB- (Is), CRISIL BB-, [ICRA] BB- or Ir BB-)	6.0

(c) if entity k is an index, an authorized institution must—

(i) determine whether the index is an investment grade index or a non-investment grade index; and

(ii) determine the supervisory factor applicable to entity k based on the type of index in accordance with Table T4.

Table T4

Type of index	Supervisory factor (%)
Investment grade index	0.38
Non-investment grade index	1.06

(d) if entity k does not have any ECAI issuer rating (in the case of an entity) or long-term ECAI issue specific rating (in the case of an instrument), the supervisory factor applicable to entity k is 1.06%.

(3) For the purposes of subsection (2)(c) and Table T4—

(a) an index is an investment grade index where the minimum credit rating for inclusion in the index specified by the index service provider concerned, if mapped to a scale of credit quality grades in accordance with Table A, B or C of Schedule 6, as the case requires, would be mapped to a credit quality grade of 1, 2 or 3; and

(b) a non-investment grade index is an index that is not an investment grade index.

X38. Calculation of add-on for subsets in asset class of equity-related derivative contracts

(1) An authorized institution must calculate an add-on for derivative contracts in a subset (as classified in accordance with section X26E(2)) in the asset class of equity-related derivative contracts by using Formula F16.

Formula F16

$$\text{AddOn}(\text{Entity}_k) = \text{SF}_k^{(\text{Equity})} \cdot \text{Effective Notional}_k^{(\text{Equity})}$$

where—

(a) $\text{AddOn}(\text{Entity}_k)$ is the add-on for a subset comprising contracts that reference entity k;

(b) $\text{SF}_k^{(\text{Equity})}$ is the supervisory factor for entity k which is, subject to the adjustments set out in section X45—

(i) 32% if entity k is an entity or a single-name equity instrument; or

(ii) 20% if entity k is an index; and

(c) $\text{Effective Notional}_k^{(\text{Equity})}$ is the effective notional amount for contracts in the subset calculated in accordance with section X40.

X39. Calculation of add-on for hedging sets in asset class of commodity-related derivative contracts

An authorized institution must calculate the add-on for a hedging set in the asset class of commodity-related derivative contracts by using Formula F17.

Formula F17

$$\text{AddOn}_j^{(\text{Com})} = \left[\left(\rho^{(\text{Com})} \cdot \sum_k \text{AddOn}\left(\text{Type}_k^j\right)\right)^2 + \text{I}_j^{(\text{Com})}\right]^{0.5}$$

$$\text{I}_j^{(\text{Com})} = \left(1 - \left(\rho^{(\text{Com})}\right)^2\right) \cdot \sum_k \left(\text{AddOn}\left(\text{Type}_k^j\right)\right)^2$$

$$\text{AddOn}(\text{Type}_k^j) = \text{SF}_k^{(\text{Com})} \cdot \text{Effective Notional}_k^{(\text{Com})}$$

where—

(a) $\text{AddOn}_j^{(\text{Com})}$ is the add-on for hedging set j in the asset class of commodity-related derivative contracts;

(b) $\rho^{(\text{Com})}$ is 40%;

(c) $\text{SF}_k^{(\text{Com})}$ is the supervisory factor for subset k (as classified in accordance with section X26F(2)) in hedging set j which is, subject to the adjustments set out in section X45—

(i) 40% if the type of commodity in the subset is electricity; or

(ii) 18% in any other case; and

(d) $\text{Effective Notional}_k^{(\text{Com})}$ is the effective notional amount for contracts that fall within subset k in hedging set j calculated in accordance with section X40.

X40. Calculation of effective notional amount for hedging sets, etc.

(1) The effective notional amount for derivative contracts in—

(a) in the case of contracts in the asset class of exchange rate contracts—a hedging set; or

(b) in the case of contracts not in the asset class of exchange rate contracts—a subset (as classified in accordance with section X26D(2), X26E(2) or X26F(2)) or maturity bucket (as allocated in accordance with section X26B(2)) in a hedging set,

is calculated by using Formula F18.

Formula F18

$$\text{Effective Notional}_k^j = \sum_{i \in HS_k^j} \delta_i \cdot d_i \cdot MF_i^{(type)}$$

where—

(a) $\text{Effective Notional}_k^j$ is the effective notional amount for derivative contracts in hedging set j, or in subset k or maturity bucket k in hedging set j, as the case requires;

(b) δ_i is the supervisory delta adjustment applicable to contract i determined in accordance with section X41;

(c) d_i is the adjusted notional of contract i determined in accordance with section X42;

(d) $MF_i^{(type)}$ is the maturity factor for contract i determined in accordance with section X43 or X43A, as the case requires; and

(e) $i \in HS_k^j$—

(i) for contracts in the asset class of exchange rate contracts—means contract i is in hedging set j formed by contracts referencing currency pair k or index k, as the case may be;

(ii) for contracts in the asset class of interest rate contracts—means contract i falls within maturity bucket k in hedging set j;

(iii) for contracts in the asset class of credit-related derivative contracts or equity-related derivative contracts—means contract i is in hedging set j and references entity k;

(iv) for contracts in the asset class of commodity-related derivative contracts—means contract i is in hedging set j and references commodity type k.

(2)[2] For the purposes of subsection (1), an authorized institution may approximate or replicate the payoff of a complex and non-linear derivative contract with a combination of simple derivative contracts if this is necessary in order to be able to calculate the effective notional amount of the complex and non-linear derivative contract by using Formula F18.

X41. Supervisory delta adjustment applicable to derivative contracts

(1) The supervisory delta adjustment (δ) applicable to a derivative contract that is not a contract referred to in subsection (2) or (4) is determined in accordance with Table T5 based on the type of derivative contract within which the contract falls.

Table T5

Type of derivative contract	δ
A derivative contract whose market value increases when the value of the contract's primary risk factor increases	+1

[2] Any guidance provided by the Basel Committee on the treatments of options, such as digital options and multiple-payment options, will be included in the supervisory guidance in the form of Q&As to be issued by the HKMA.

A derivative contract whose market value decreases when the value of the contract's primary risk factor increases	–1

(2) The supervisory delta adjustment **(**δ) applicable to a derivative contract that is an option is determined in accordance with Table T6 based on the type of derivative contract within which the contract falls.

Table T6

Type of derivative contract	δ
Bought call option	+ N(+d)
Sold call option	– N(+d)
Bought put option	– N(–d)
Sold put option	+ N(–d)

(3) In Table T6—

(a) N(...) represents the cumulative distribution function for a standard normal random variable; and

(b) $d = \frac{\ln(P+\lambda/K+\lambda) + 0.5 \cdot \sigma^2 \cdot T}{\sigma \cdot \sqrt{T}}$

where—

(i) P is the price of the underlying exposure of the option concerned (where appropriate, the forward value (rather than the spot price) of the underlying exposure is to be used to account for the risk-free rate as well as the possible cash flows generated from the underlying exposure prior to the option expiry);

(ii) K is the strike price of the option;

(iii) if the option falls within the asset class of interest rate contracts, λ is the presumed lowest possible extent to which the interest rates of the currency concerned can become negative, in any other case, λ is equal to zero;

(iv) σ is the supervisory volatility determined in accordance with Table T7 based on the asset class (or subclass, where applicable) to which the option belongs; and

Table T7

Asset class	Subclass	σ (%)
Interest rate contracts	-	50
Exchange rate contracts	-	15
Credit-related derivative contracts	Single-name	100
	Index	80
Equity-related derivative contracts	Single-name	120
	Index	75
Commodity-related derivative contracts	Electricity	150
	Commodities other than electricity	70

(v) T is the length of the time period (measured in years) from the current date to the latest contractual exercise date of the option.

(3A) For the purposes of subsection (3)(b)—

(a) if the payoff of an option is determined by reference to the average price of the underlying exposure over a pre-specified period, P is the current value of the average price; and

(b) if an option has more than one exercise date, in determining T, the latest allowed exercise date of the option must be used.

(4)[3] The supervisory delta adjustment (**δ**) applicable to a derivative contract that provides tranched credit protection is determined in accordance with Table T8 based on the type of credit protection.

Table T8

Type of credit protection	**δ**
Purchased tranched credit protection with attachment point (**A**) and detachment point (**D**)	$+\frac{15}{(1+14\cdot A)\cdot(1+14\cdot D)}$
Sold tranched credit protection with attachment point (**A**) and detachment point (**D**)	$-\frac{15}{(1+14\cdot A)\cdot(1+14\cdot D)}$

X42. Calculation of adjusted notional of derivative contracts

(1) Subject to subsection (4)—

(a) the adjusted notional of a contract falling within the asset class of interest rate contracts or credit-related derivative contracts is the product of—

(i) the notional amount of the contract (converted to Hong Kong dollars at the current market spot exchange rate if it is not denominated in Hong Kong dollars); and

(ii) the supervisory duration of the contract calculated by using Formula F19;

(b) the adjusted notional of a contract falling within the asset class of exchange rate contracts is—

(i) the notional amount of the foreign currency leg of the contract, converted to Hong Kong dollars at the current market spot exchange rate; or

(ii) if both legs of the contract are denominated in currencies other than Hong Kong dollars—the notional amount of the leg that, after having been converted to Hong Kong dollars at the current market spot exchange rate, has the larger value; and

(c) the adjusted notional of a contract falling within the asset class of equity-related derivative contracts or commodity-related derivative contracts is—

(i) if the underlying exposure of the contract is an equity or a commodity—the product of the current market price of one unit of the equity or commodity and the number of units referenced by the contract;

(ii) if the underlying exposure of the contract is an index (including an index on volatility)—the product of the current level of the index and the value of each index point designated in the contract; or

[3] The guidance provided by the Basel Committee on the determination of the attachment point and detachment point of n^{th}-to-default credit derivative contracts will be included in the supervisory guidance in the form of Q&As to be issued by the HKMA.

(iii) if the contract is a volatility transaction—the product of the volatility measure specified in the contract and the contractual notional amount of the contract.

(2) The supervisory duration of a contract falling within the asset class of interest rate contracts or credit-related derivative contracts is calculated by using Formula F19.

Formula F19

$$SD = \frac{\exp(-0.05 \cdot S) - \exp(-0.05 \cdot E)}{0.05}$$

where—

(a) SD is the supervisory duration of the contract;

(b) S is—

(i) subject to paragraphs (ii) and (iii), the length of the time period (measured in years) from the current date to the start date of the time period referenced by the contract, subject to a floor of 10 business days;

(ii) subject to paragraph (iii), if the contract is an option on an interest rate swap and the option can be exercised on any one of a number of fixed and pre-determined exercise dates—the length of the time period (measured in years) from the current date to the earliest allowed exercise date of the option, subject to a floor of 10 business days;

(iii) if the start date has passed—zero; and

(c) E is—

(i) subject to paragraph (ii), the length of the time period (measured in years) from the current date to the end date of the time period referenced by the contract, subject to a floor of 10 business days;

(ii) if the contract is an option on an interest rate swap and the option can be exercised on any one of a number of fixed and pre-determined exercise dates—the length of the time period (measured in years) from the current date to the end date of the time period referenced by the interest rate swap, subject to a floor of 10 business days.

(3) When determining the values of S and E for the purposes of Formula F19, the requirements set out in section X44 must be complied with where applicable.

(4) If the notional amount of a derivative contract is not stated clearly or fixed until maturity, the notional amount to be used in the calculation of the adjusted notional of the derivative contract is—

(a) if the stated notional amount of the contract is a formula with market values as inputs—the amount calculated by entering the current market values into the formula;

(b) if the contract is structured so that its notional amount is variable over time—the time-weighted average notional amount over the remaining time to maturity of the contract;

(c) if the contract is leveraged by multiplying the rates referenced by the contract by a factor—the notional amount of the contract as if it were unleveraged which is calculated by multiplying the stated notional amount of the contract by the factor; or

(d) if the contract has multiple exchanges of principal—the product of the remaining number of exchanges of principal to be made under the contract and the stated notional amount of the contract.

X43. Maturity factor for derivative contracts not subject to margin agreement

(1) The maturity factor for a derivative contract that is not subject to a margin agreement or that is subject to a one-way margin agreement mentioned in section X27(1)(b) is calculated by using Formula F20.

Formula F20

$$MF_i^{(unmargined)} = \sqrt{\frac{\min\{M_i;\ 1\ year\}}{1\ year}}$$

where—

(a) $MF_i^{(unmargined)}$ is the maturity factor for derivative contract i; and

(b) M_i is the remaining time to maturity of derivative contract i calculated from the current date, or, where applicable, the remaining time to maturity referred to in section X44(2), subject to a floor of 10 business days.

(2) If—

(a) the underlying exposure of a derivative contract (***principal contract***) is another derivative contract (***underlying contract***); and

(b) the principal contract may be exercised or settled by physical delivery of the underlying contract,

the M_i of the principal contract for the purposes of Formula F20 is the length of the time period from the current date to the final settlement date of the underlying contract, subject to a floor of 10 business days.

X43A. Maturity factor for derivative contracts subject to margin agreement

(1) The maturity factor for a derivative contract that is subject to a margin agreement is calculated by using Formula F21.

Formula F21

$$MF_i^{(margined)} = \frac{3}{2}\sqrt{\frac{MPOR_i}{1\ year}}$$

where—

(a) $MF_i^{(margined)}$ is the maturity factor for derivative contract i; and

(b) $MPOR_i$ is the margin period of risk appropriate for the margin agreement covering derivative contract i, subject to the requirements set out in subsections (2), (3), (4), (5) and (6).

(2) Subject to subsections (3), (4) and (6) and unless otherwise required by Division 4, the margin period of risk applicable to a derivative contract subject to daily remargining and daily mark-to-market must not be less than—

(a) 5 business days if the contract is a CCP-related transaction or an offsetting transaction in respect of a qualifying CCP entered into by an authorized institution—

(i) as a clearing member with its direct client; or

(ii) as a direct client or an indirect client with its client within a multi-level client structure; or

(b) 10 business days in any other case.

(3) If a derivative contract subject to daily remargining and daily mark-to-market is in a netting set referred to in section 226M(2), the margin period of risk applicable to the contract must not be less than the supervisory floor specified in that section.

(4) If a derivative contract subject to daily remargining and daily mark-to-market is in a netting set referred to in section 226M(3), the margin period of risk applicable to the contract must not be less than the supervisory floor specified in that section.

(5) If the remargining frequency of a derivative contract is not daily, the margin period of risk applicable to the contract has to be scaled up by using Formula 23E in section 226M(6) where F in Formula 23E is construed to mean the margin period of risk determined in accordance with—

(a) subsection (2);

(b) section 226M(2) under subsection (3); or

(c) section 226M(3) under subsection (4).

(6) If a derivative contract is—

(a) one referred to in subsection (2), (3), (4) or (5); and

(b) in a netting set over which there has been more than 2 margin call disputes during the previous 2 quarters and the disputes have lasted longer than the margin period of risk applicable to the contract under that subsection,

the margin period of risk applicable to the contract for the subsequent 2 quarters must be at least double the margin period of risk applicable to the contract under that subsection.

X44. Supplementary provisions for determination of S, E and M_i in Formulas F19 and F20

(1) For the purposes of calculating the supervisory duration of a contract by using Formula F19, if the contract is—

(a) a derivative contract falling within the asset class of interest rate contracts that references the value of another interest rate contract, interest rate instrument, inflation derivative contract or inflation-linked instrument; or

(b) a derivative contract falling within the asset class of credit-related derivative contracts that references the value of another credit-related derivative contract or credit instrument,

the values of S and E in the formula must be determined based on the start date and the end date of the time period referenced by the underlying contract or instrument.

(2) For the purposes of calculating the maturity factor for a contract by using Formula F20, if—

(a) the contract is structured to settle the outstanding exposures under the contract on specified dates; and

(b) the terms of the contract are reset so that the fair value of the contract is zero on the specified dates,

the value of M_i in the formula must be determined on the basis that the remaining time to maturity of the contract is the period from the current date until the next reset date.

X45. Treatments of supervisory factor for basis transactions and volatility transactions

The supervisory factor applicable to an asset class, a hedging set or a subset, when used in calculating the add-on for a hedging set in an asset class or for a subset in a hedging set, must be adjusted by multiplying the supervisory factor by—

(a) if the hedging set consists of basis transactions—one-half; or

(b) if the hedging set consists of volatility transactions—5.

X46. Authorized institution to hold regulatory capital for credit risk or market risk of posted collateral

To avoid doubt, an authorized institution must, for collateral posted by it for a derivative contract (whether the collateral is included in the calculations under section X30 or not), hold regulatory capital for the credit risk or market risk, whichever is applicable, of the collateral itself calculated under Part 4, 5, 6, 7 or 8, as the case requires—

(a) as if it had not been posted as collateral; and

(b) if the collateral is held by another person, as if the collateral were held by the institution.".

74. Section 226D amended (calculation of IMM(CCR) risk-weighted amount at portfolio level under IMM(CCR) approach)

(1) Section 226D(1)(a)—

Repeal

"OTC derivative transactions or credit".

(2) Section 226D(1)(b)—

Repeal

"OTC derivative transactions or credit".

75. Section 226I amended (treatments for certain derivative contracts)

(1) Section 226I—

Repeal

"must treat"

Substitute

"may treat".

(2) Section 226I(a)—

Repeal

"has been"

Substitute

"is".

76. Section 226K amended (treatments for margin agreements)

(1) Section 226K(1)(a), at the end—

Add

"or".

(2) Section 226K(1)—

Repeal paragraph (b).

(3) Section 226K(3)—

Repeal

"OTC derivative transactions, credit".

(4) Section 226K(3)(b)—

Repeal

"(within the meaning of section 51(1))"

Substitute

"(subject to the adjustment set out in section 3 of Schedule 7)".

(5) Section 226K, after subsection (4)—

Add

"(5) An authorized institution must, if it has posted unsegregated collateral to a counterparty under a margin agreement for a netting set, take into account its exposure to the counterparty arising from the unsegregated collateral (***relevant exposure***) in the calculation of effective EPE under section 226F.

(6) For the purposes of subsection (5), if an authorized institution determines the effective EPE of the netting set in accordance with subsection (1)(a), the amount of its relevant exposure must be calculated in accordance with section 71(2), 118(2), 163(2A) or 164(2)(b), as the case requires, instead of by using the internal model.

(7) To avoid doubt, an authorized institution must, for collateral posted by it for a netting set (whether the collateral is taken into account in the determination of the effective EPE of the netting set or not), hold regulatory capital for the credit risk or market risk, whichever is applicable, of the collateral itself calculated under Part 4, 5, 6, 7 or 8, as the case requires—

(a) as if it had not been posted as collateral; and

(b) if the collateral is held by another person, as if the collateral were held by the institution.".

77. Section 226L repealed (shortcut method)

Section 226L—

Repeal the section.

78. Section 226M amended (margin period of risk)

(1) Section 226M—

Repeal subsection (1)

Substitute

"(1) Subject to subsections (2), (3) and (7) and unless otherwise required by Division 4, if a netting set of an authorized institution is subject to a margin agreement and the transactions in the netting set are subject to daily remargining and daily mark-to-market, the supervisory floor of the margin period of risk used for calculating the default risk exposure in respect of the netting set is—

(a) 5 business days if the netting set consists of repo-style transactions only;

(b) 5 business days if the netting set is not a netting set referred to in paragraph (a) and only consists of CCP-related transactions or offsetting transactions in respect of a qualifying CCP entered into by the institution—

(i) as a clearing member with its direct client; or

(ii) as a direct client or an indirect client with its client within a multi-level client structure; or

(c) 10 business days in any other case.".

(2) Section 226M(3)(b)—

Repeal

"an OTC derivative transaction or credit"

Substitute

"a".

(3) Section 226M(4)(a)—

Repeal

"an OTC derivative transaction or credit" (wherever appearing).

Substitute

"a".

(4) Section 226M(4)(a)(ii)—

Repeal

", transaction".

79. Part 6A, Divisions 2B and 2C added

After Division 2—

Add

"Division 2B—current exposure method

X47. Application of Division 2B

This Division applies to an authorized institution that chooses under section 10A(2)(b) to use the current exposure method to calculate the default risk exposure in respect of derivative contracts.

X48. Calculation of default risk exposure

(1) Subject to subsections (2) and (3) and section X48A, an authorized institution must use Formula FB1 to calculate the default risk exposure in respect of a derivative contract.

Formula FB1

$$\text{Default risk exposure} = \alpha \times (\text{RC} + \text{PFE})$$

where—

(a) $\alpha = 1.4$;

(b) RC is the current exposure of the contract (if any collateral posted to the counterparty concerned for the contract is unsegregated collateral, the current exposure of the contract must include the current market value of the collateral); and

(c) PFE is the potential future exposure of the contract calculated in accordance with section X49.

(2) If the premium for a sold option has been fully paid upfront, the amount of default risk exposure of the option may be set to zero.

(3) If a credit-related derivative contract with periodic premium payments is not a sold option, the amount of default risk exposure incurred by the protection seller in the contract calculated under this section is capped at the amount of the unpaid premium under the contract.

X48A. Treatments for certain credit derivative contracts

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

(a) both of the following conditions are met—

(i) the contract is a credit default swap in which the institution is the protection seller;

(ii) a regulatory capital is held in respect of the risk-weighted amount calculated in accordance with Part 5 or 7 for the institution's exposure to the credit risk of the reference obligation underlying the swap; or

(b) both of the following conditions are met—

(i) the institution is the protection buyer in the contract;

(ii) the credit risk mitigation effect of the contract has been recognized and taken into account under Divisions 7 and 8 of Part 5 or Division 5 of Part 7, for the purposes of calculating the risk-weighted amount of the exposure to which credit protection is provided by the contract.

X49. Calculation of potential future exposure of derivative contract

(1) The potential future exposure of a derivative contract is calculated by multiplying the notional amount of the derivative contract by the credit conversion factor applicable to the contract determined in accordance with Table TB1 based on the type of derivative contract within which the contract falls.

Table TB1

Item	Type of derivative contract	Credit conversion factor
1.	Interest rate contract—	
	(a) with a residual maturity of not more than 1 year;	0.5%
	(b) with a residual maturity of more than 1 year but not more than 5 years;	2%
	(c) with a residual maturity of more than 5 years.	4%
2.	Credit-related derivative contract that references a single entity, or a single-name credit instrument, having category 1 credit quality grade—	
	(a) with a residual maturity of not more than 1 year;	0.5%
	(b) with a residual maturity of more than 1 year but not more than 5 years;	2.5%
	(c) with a residual maturity of more than 5 years	4.5%
3.	Credit-related derivative contract that references an investment grade index—	
	(a) with a residual maturity of not more than 1 year;	0.5%
	(b) with a residual maturity of more than 1 year but not more than 5 years;	2.5%
	(c) with a residual maturity of more than 5 years	4.5%
4.	Credit-related derivative contract that references a single entity, or a single-name credit instrument, having category 2 credit quality grade—	
	(a) with a residual maturity of not more than 1 year;	1.5%
	(b) with a residual maturity of more than 1 year but not more than 5 years;	7.0%
	(c) with a residual maturity of more than 5 years.	12.5%
5.	Credit-related derivative contract that references a single entity that does not have any ECAI issuer rating or a single-name credit instrument that does not have any long-term ECAI issue specific rating—	
	(a) with a residual maturity of not more than 1 year;	1.5%

Table TB1

Item	Type of derivative contract	Credit conversion factor
	(b) with a residual maturity of more than 1 year but not more than 5 years;	7.0%
	(c) with a residual maturity of more than 5 years.	12.5%
6.	Credit-related derivative contract that references a non-investment grade index—	
	(a) with a residual maturity of not more than 1 year;	1.5%
	(b) with a residual maturity of more than 1 year but not more than 5 years;	7.0%
	(c) with a residual maturity of more than 5 years.	12.5%
7.	Credit-related derivative contract that references a single entity, or a single-name credit instrument, having category 3 credit quality grade—	
	(a) with a residual maturity of not more than 1 year;	6.0%
	(b) with a residual maturity of more than 1 year but not more than 5 years;	26.5%
	(c) with a residual maturity of more than 5 years.	47.0%
8.	Exchange rate contract	4%
9.	Equity-related derivative contract that references a single name	32%
10.	Equity-related derivative contract that references an index	20%
11.	Commodity-related derivative contract the underlying commodity of which is precious metal (including gold)	18%
12.	Commodity-related derivative contract the underlying commodity of which is electricity	40%
13.	Commodity-related derivative contract (other than those referred to in items 11 and 12)	18%
14.	Any other derivative contract not specified in items 1 to 13	the applicable CCF specified in Part 2 of Schedule 1 or, if no such CCF is specified, 40%

(2) For the purpose of subsection (1)—

(a) if the derivative contract is a contract to which section X50 is applicable, the notional amount must be determined in accordance with that section; and

(b) the type of derivative contract within which a contract falls must be determined based on the contract's primary risk factor.

(3) For the purposes of items 3 and 6 in Table TB1—

(a) an index is an investment grade index where the minimum credit rating for inclusion in the index specified by the index service provider concerned, if mapped to a scale of credit quality grades in accordance with Table A, B or C of Schedule 6, as the case requires, would be mapped to a credit quality grade of 1, 2 or 3; and

(b) a non-investment grade index is an index that is not an investment grade index.

(4) For the purposes of items 2, 4 and 7 in Table TB1, an authorized institution must determine whether a single entity or a single-name credit instrument has a category 1, 2 or 3 credit quality grade by mapping the ECAI issuer rating of the entity, or the long-term ECAI issue specific rating of the credit instrument, to a scale of credit quality grades in accordance with—

(a) if the entity is a corporate incorporated in India or the credit instrument is issued by such a corporate—Part 2 of Table C in Schedule 6; or

(b) in any other case—Table A in Schedule 6 (regardless of whether the entity or issuer of the credit instrument is a sovereign or not).

(5) For the purposes of items 2, 4 and 7 in Table TB1—

(a) a single entity, or a single-name credit instrument, has a category 1 credit quality grade if the ECAI rating concerned is mapped to a credit quality grade of 1, 2 or 3;

(b) a single entity, or a single-name credit instrument, has a category 2 credit quality grade if the ECAI rating concerned is mapped to—

(i) a credit quality grade of 4;

(ii) subject to paragraph (iii), a credit quality grade of 5; or

(iii) in the case of an ECAI rating mapped in accordance with Part 2 of Table C in Schedule 6—a credit quality grade of 5 where the ECAI rating is CARE BB-, CARE BB- (Is), CRISIL BB-, [ICRA] BB-, Ir BB- or above; or

(c) a single entity, or a single-name credit instrument, has a category 3 credit quality grade if the ECAI rating concerned is mapped to—

(i) subject to paragraph (ii), a credit quality grade of 6; or

(ii) in the case of an ECAI rating mapped in accordance with Part 2 of Table C in Schedule 6—a credit quality grade of 5 where the ECAI rating is below CARE BB-, CARE BB- (Is), CRISIL BB-, [ICRA] BB- or Ir BB-.

(6) Subject to subsection (7)(a), for the purposes of Table TB1—

(a) the residual maturity of an interest rate contract that references the value of another interest rate contract (***underlying contract***) or interest rate instrument is the length of the time period from the current date to the maturity date of the underlying contract or instrument; and

(b) the residual maturity of a credit-related derivative contract that references the value of another credit-related derivative contract (***underlying contract***) or credit instrument is the length of the time period from the current date to the maturity date of the underlying contract or instrument.

(7) If a derivative contract is structured to settle the outstanding exposures under the contract on specified dates and the terms of the contract are reset so that the fair value of the contract is zero on the specified dates, an authorized institution—

(a) must treat the residual maturity of the contract as the period from the current date until the next reset date; and

(b) if the contract is an interest rate contract and its remaining time to final maturity is more than one year, must not apply a CCF of less than 2% to the contract.

X50. Notional amount of certain types of derivative contracts

(1) Subject to subsections (2) and (3)—

(a) the notional amount of an exchange rate contract is—

(i) the notional amount of the foreign currency leg of the contract, converted to Hong Kong dollars at the current market spot exchange rate; or

(ii) if both legs of the contract are denominated in currencies other than Hong Kong dollars—the notional amount of the leg that, after having been converted to Hong Kong dollars at the current market spot exchange rate, has the larger value; and

(b) the notional amount of an equity-related derivative contract or a commodity-related derivative contract is—

(i) if the underlying exposure of the contract is an equity or a commodity—the product of the current market price of one unit of the equity or commodity and the number of units referenced by the contract;

(ii) if the underlying exposure of the contract is an index (including an index on volatility)— the product of the current level of the index and the value of each index point designated in the contract; or

(iii) if the contract is a volatility transaction—the product of the volatility measure specified in the contract and the contractual notional amount of the contract.

(2) For a derivative contract that has multiple exchanges of principal, the notional amount of the contract is the product of the remaining number of exchanges of principal to be made under the contract and the stated notional amount of the contract.

(3) If the stated notional amount of a derivative contract is leveraged or enhanced by the structure of the contract, the notional amount of the contract is the effective notional amount of the contract calculated by taking into account the effect of the leverage or enhancement, as the case may be.

X51. Authorized institution to hold regulatory capital for credit risk or market risk of posted collateral

To avoid doubt, an authorized institution must, for collateral posted by it for derivative contracts (whether the collateral is included in the calculation under section X48 or not), hold regulatory capital for the credit risk or market risk, whichever is applicable, of the collateral itself calculated under Part 5, 7 or 8, as the case requires—

(a) as if it had not been posted as collateral; and

(b) if the collateral is held by another person, as if the collateral were held by the institution.

Division 2C—Calculation of default risk exposure in respect of SFTs

X52. Application of Division 2C

(1) This Division applies to the following authorized institutions—

(a) an authorized institution that does not have an IMM(CCR) approval for SFTs;

(b) an authorized institution that has an IMM(CCR) approval for certain types of SFT only; and

(c) an authorized institution that is permitted under section 10B(5), or has chosen under section 10B(7), to use the methods prescribed in this Division for certain SFTs.

(2) Subject to subsection (3), an authorized institution must calculate the default risk exposure in respect of SFTs that are not subject to the IMM(CCR) approach in accordance with sections X53, X54 and X55.

(3) An authorized institution that uses the STC approach and the simple approach in its treatment of recognized collateral for any exposures that are not past due exposures must not take into account recognized netting in the calculation of default risk exposure in respect of the institution's SFTs booked in its banking book.

(4) An authorized institution that uses the BSC approach must not take into account recognized netting in the calculation of default risk exposure in respect of all the institution's SFTs.

(5) In this Division—

principal amount ( )—

(a) if the asset concerned is measured at fair value—means the value of the asset determined in accordance with section 4A;

(b) if the asset concerned is not measured at fair value—means the book value of the asset.

X53. Calculation of default risk exposure in respect of repo-style transactions that are not nettable and margin lending transactions

(1) This section applies to an SFT if it is—

(a) a repo-style transaction that is not nettable;

(b) a nettable repo-style transaction in respect of which an authorized institution must not take into account recognized netting in the calculation of default risk exposure because of section X52(3) or (4); or

(c) a margin lending transaction.

(2) An authorized institution must treat the securities sold, lent or delivered, or money paid, to a counterparty under an SFT as if they were a loan to the counterparty secured on the money or securities received from the counterparty under the SFT.

(3) Accordingly, the authorized institution must take the principal amount of the securities sold, lent or delivered, or the money paid, as the amount of the default risk exposure in respect of the SFT.

X54. Calculation of default risk exposure in respect of nettable repo-style transactions

(1) An authorized institution must not take into account the effect of recognized netting covering a portfolio of repo-style transactions in the calculation of the default risk exposure in respect of the transactions other than under this section.

(2) An authorized institution must calculate the default risk exposure in respect of nettable repo-style transactions entered into with a counterparty by using Formula FC1.

Formula FC1

$$E^{*} = \max\left\{0, \left[\left(\sum(E) - \sum(C)\right) + \sum\left(E_S \times H_S\right) + \sum\left(E_{fx} \times H_{fx}\right)\right]\right\}$$

where—

(a) E* is the default risk exposure;

(b) E is the current market value of all money and securities provided to the counterparty under the transactions;

(c) C is the current market value of money and securities received from the counterparty under the transactions;

(d) E_s is the absolute value of the net position in the same securities;

(e) H_s is the standard supervisory haircut applicable to E_s (subject to the adjustment set out in section 3 of Schedule 7);

(f) E_{fx} is the absolute value of the net position in a currency different from the settlement currency; and

(g) H_{fx} is the standard supervisory haircut applicable in consequence of a currency mismatch, if any, between the currency in which a net position is denominated and the settlement currency (subject to the adjustment set out in section 3 of Schedule 7).

(3) In determining the values of H_s and H_{fx} in Formula FC1, the minimum holding period applicable to the repo-style transactions is determined in the same manner as set out in section 91(1), (2) and (3).

(3A) In calculating the default risk exposure in respect of nettable repo-style transactions entered into by an authorized institution, C in Formula FC1 may only consist of the following securities—

(a) for repo-style transactions booked in the institution's banking book—securities which are recognized collateral (within the meaning of section 51(1)) falling within section 80(1)(a), (b) or (c); and

(b) for repo-style transactions booked in the institution's trading book where the arrangements for the provision of collateral in respect of the transactions satisfy all the requirements of section 77 (other than the requirements of section 77(g) and (i)(i))—any securities.

(4) An authorized institution—

(a) subject to paragraph (b), must net its nettable repo-style transactions booked in its banking book separately from netting its nettable repo-style transactions booked in its trading book and vice versa;

(b) may net repo-style transactions booked in its banking book with repo-style transactions booked in its trading book in respect of the same counterparty if—

(i) all those repo-style transactions are marked-to-market daily; and

(ii) all the securities received by the institution under all those repo-style transactions are recognized collateral (within the meaning of section 51(1)) falling within section 80(1)(a), (b) or (c).

X55. Use of value-at-risk model instead of formula in section X54

(1) This section applies to an authorized institution that is granted an approval under section 18(2)(a) by the Monetary Authority to use the IMM approach to calculate its market risk.

(2) The institution may make an application to the Monetary Authority for an approval to use an internal model based on VaR (***VaR model***) as an alternative to the use of Formula FC1 for the purpose of calculating the default risk exposure to a counterparty arising from nettable repo-style transactions.

(3) Subject to subsections (4) and (5), the Monetary Authority must—

(a) determine the application by granting or refusing to grant the approval; and

(b) give a written notice of the decision to the institution.

(4) The Monetary Authority must refuse to grant the approval under subsection (3)(a) unless the institution satisfies the Monetary Authority that, for the VaR model in respect of which the approval is sought—

(a) the model will take into account any price relationship between the value of money and securities provided to a counterparty and the value of money and securities received from the counterparty under nettable repo-style transactions, and, in particular in this regard, whether the prices have a positive relationship or negative relationship or have no relationship at all;

(b) the quality of the model has proved acceptable under a back-testing that—

(i) uses data covering at least a one-year period; and

(ii) covers representative counterparty portfolios that have been chosen based on the sensitivity of the portfolios to the material risk factors and correlations to which the institution is exposed;

(c) 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 should be assumed; and

(ii) will be increased in the manner set out in section 226M(2) or (3), as the case requires, if those transactions constitute a netting set that falls within any of the descriptions in that section;

(d) if the nettable repo-style transactions are not subject to daily remargining, the model will assume a minimum holding period that is at least equal to the minimum holding period calculated by using Formula FC2; and

Formula FC2

$$\text{Minimum holding period} = F + N - 1$$

where—

F = the minimum holding period determined in accordance with paragraph (c); and

N = actual number of days between each remargining of the transactions.

(e) the minimum holding period determined in accordance with paragraph (c) or (d), as the case may be, will be further increased in the manner set out in section 226M(7) if the transactions concerned constitute a netting set that falls within that section.

(5) The Monetary Authority must, in deciding whether to grant approval under subsection (3)(a) in respect of a VaR model, take into account the requirements set out in Schedule 3.

(6) An authorized institution that is granted an approval under subsection (3)(a) must calculate the default risk exposure to a counterparty under nettable repo-style transactions by using Formula FC3.

Formula FC3

$$E^{*} = \max\left\{0, \left[\left(\sum(E) - \sum(C)\right) + \text{VaR output}\right]\right\}$$

where—

(a) E* is the default risk exposure to a counterparty under nettable repo-style transactions;

(b) E is the current market value of the money and securities provided to the counterparty under the transactions;

(c) C is the current market value of the money and securities received from the counterparty under the transactions; and

(d) VaR output is the VaR number generated by the VaR model in respect of the previous business day.".

80. Section 226N amended (transactions and contracts to be covered)

Section 226N—

Repeal

", credit derivative contracts and (if required by the Monetary Authority under section 10A(6)) SFTs, except the transactions and contracts"

Substitute

"and (if required by the Monetary Authority under section 10A(6)) SFTs, except the transactions".

81. Section 226P amended (advanced CVA method)

(1) Section 226P(4)—

Repeal

", (12)".

(2) Section 226P(5)—

Repeal

", (12)".

(3) Section 226P—

Repeal subsection (12).

(4) Section 226P(13)—

Repeal

"current exposure method" (wherever appearing)

Substitute

"SA-CCR approach".

82. Section 226S amended (standardized CVA method)

(1) Section 226S(1)(c), before "the current exposure"—

Add

"the SA-CCR approach,".

(2) Section 226S(2A)—

Repeal paragraph (b)

Substitute

"(b) the method set out in section X53 to calculate the institution's default risk exposures in respect of SFTs,".

(3) Section 226S(2A), after "recognized collateral"—

Add

"received under the SFTs".

83. Section 226T amended (eligible CVA hedges)

Section 226T(6)(c), after "IMM(CCR) approach"—

Add

", the SA-CCR approach".

84. Section 226V amended (interpretation of Division 4)

(1) Section 226V(1), definition of ***Basel CCR Rules***—

Repeal

everything after "Annex 4"

Substitute

"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, as amended or supplemented from time to time;".

(2) Section 226V(1), definition of ***qualifying CCP***, paragraph (c)—

Repeal

"123"

Substitute

"207".

(3) Section 226V(1), definition of ***qualifying CCP***, paragraph (d)—

Repeal

"124"

Substitute

"208".

(4) Section 226V(1), definition of ***qualifying CCP***, paragraph (d)—

Repeal the semicolon

Substitute a full stop.

(5) Section 226V(1)—

(a) definition of ***initial margin***;

(b) definition of ***offsetting transaction***;

(c) definition of ***variation margin***—

Repeal the definitions.

(6) Section 226V(2)(b)—

Repeal

"to a netting agreement"

Substitute

"to an arrangement".

(7) Section 226V(2)(b)—

Repeal

"as a netting agreement"

Substitute

"as an enforceable arrangement".

85. Section 226W amended (calculation of credit risk exposures)

(1) Section 226W(1)—

Repeal

"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"

Substitute

"Subject to subsections (3), (5), (6) and (7), an authorized institution must calculate its default risk exposure to a CCP, a clearing member or a client in respect of".

(2) Section 226W—

Repeal subsections (2) and (4).

(3) Section 226W—

Repeal subsection (5)

Substitute

"(5) If a netting set with a qualifying CCP falls within the description in section 226M(2) and an authorized institution uses the IMM(CCR) approach, the SA-CCR approach or the method set out in section X54 or X55 to calculate the default risk exposure in respect of the netting set, the higher supervisory floor of 20 business days required under section 226M(2), X43A(3), 91(2) (as applied by section X54 and insofar as it relates to section 226M(2)) or X55(4)(c)(ii) (insofar as it relates to section 226M(2)) does not apply to the calculation of the default risk exposure if the netting set—

(a) does not contain illiquid collateral or transactions that cannot be easily replaced; and

(b) does not contain any disputed transactions.

(6) For the purposes of calculating the default risk exposures to CCPs arising from clearing of derivative contracts under section 226X or 226ZD, a minimum margin period of risk of 10 business days must be used.

(7) If a CCP retains the variation margin posted by an authorized institution against a transaction and the variation margin is not protected against the insolvency of the CCP, the minimum margin period of risk or the minimum holding period, as the case may be, used in calculating the institution's default risk exposure in respect of the transaction is the lesser of—

(a) one year; or

(b) the remaining time to maturity of the transaction, subject to a floor of 10 business days.".

86. Section 226X amended (exposures of clearing members to qualifying CCPs)

(1) Section 226X(1)(b)—

Repeal

"its client"

Substitute

"its direct client".

(2) Section 226X(2A)—

Repeal paragraph (a).

(3) Section 226X—

Repeal subsections (4), (5) and (6)

Substitute

"(4) 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_{AI}) to the qualifying CCP.

Formula 23K

$$K_{AI} = \max\left(K_{CCP} \cdot \left(\frac{DF_{AI}^{funded}}{DF_{CCP} + DF_{CM}^{funded}}\right); 8\% \cdot 2\% \cdot DF_{AI}^{funded}\right)$$

where—

(a) K_{CCP} is the hypothetical capital requirement of the qualifying CCP calculated in accordance with the methodology and requirements set out in paragraph 207 of the Basel CCR Rules for its default risk exposures to all of its clearing members and their clients and, unless otherwise specified by the Monetary Authority under subsection (5), the risk-weight assigned to the default risk exposures for the purpose of the calculation is 20%;

(b) DF_{AI}^{funded} is the funded default fund contribution made by the institution;

(c) DF_{CCP} is the qualifying CCP's funded own resources, including capital and retained earnings, which are contributed to the default waterfall, where these resources are junior to, or rank equally with, clearing members' funded default fund contributions; and

(d) DF_{CM}^{funded} is the total funded default fund contributions made by the clearing members of the qualifying CCP.

(5) The Monetary Authority may, by notice in writing to all authorized institutions, specify a risk-weight which is higher than 20%, or equal to 20% (if the risk-weight currently in use is higher than 20%), for the purpose of the calculation of K_{CCP} under paragraph 207(1) of the Basel CCR Rules if the Monetary Authority considers that the risk-weight specified is warranted by the overall credit quality of the clearing members of the qualifying CCP concerned.

(6) The effective date of the risk-weight specified under subsection (5) is to be a date not less than 2 months from the date on which the authorized institutions were notified.

(7) An authorized institution that is a clearing member of the qualifying CCP concerned must ensure that the risk-weight specified under subsection (5) and its effective date are communicated promptly to the person responsible for the calculation of the K_{CCP}.

(8) An authorized institution may assign a risk-weight of 0% to its funded default fund contribution to the qualifying CCP, to the extent of the amount for covering settlement-risk-only products.

(9) If the sum of an authorized institution's risk-weighted amount of its default risk exposure to a qualifying CCP and the risk-weighted amount of its default fund contribution made to the qualifying CCP is higher than the total risk-weighted amount that would be calculated for those same exposures if the qualifying CCP were a non-qualifying CCP, the latter total risk-weighted amount must be used in the institution's capital adequacy ratio calculations.".

87. Section 226Y amended (provisions supplementary to section 226X(4))

(1) Section 226Y—

Repeal subsections (1) and (2).

(2) Section 226Y(3), after "K_{AI}"—

Add

"in Formula 23K".

(3) Section 226Y—

Repeal subsections (4) and (5).

88. Section 226Z amended (exposures of clearing members to clients)

(1) Section 226Z, heading—

Repeal

"**clients**"

Substitute

"**direct clients**".

(2) Section 226Z(1)(a)—

Repeal

"clients arising from CCP-related transactions"

Substitute

"direct clients arising from CCP-related transactions or offsetting transactions".

(3) Section 226Z(1)(b)—

Repeal

"clients'"

Substitute

"direct clients'".

(4) Section 226Z(2)(b)—

Repeal

"for a derivative contract traded on an exchange, with its"

Substitute

"or offsetting transaction for a derivative contract traded on an exchange, with its direct".

(5) Section 226Z(2)—

Repeal

"the client"

Substitute

"the direct client".

(6) Section 226Z(2A)—

Repeal

"client" (wherever appearing)

Substitute

"direct client".

(6A) Section 226Z(2A)—

Repeal

"recognized collateral" (wherever appearing)

Substitute

"a form of recognized credit risk mitigation".

(7) Section 226Z—

Repeal subsections (3), (4) and Table 23C

Substitute

"(3) If, in calculating the default risk exposure in respect of a direct client, an authorized institution has applied—

(a) a shorter margin period of risk determined in accordance with section X43A(2)(a) or 226M(1)(b); or

(b) a margin period of risk determined in accordance with section X43A(5) or (6), or section 226M(6) or (7), based on the shorter margin period of risk referred to in paragraph (a),

the reduced default risk exposure resulted from the use of a shorter margin period of risk under paragraph (a) or (b) must also be used in the calculation of the CVA risk-weighted amount in respect of the direct client.".

89. Section 226ZA amended (exposures of clients to clearing members)

(1) Section 226ZA, heading—

Repeal

"**clients**"

Substitute

"**direct clients**".

(2) Section 226ZA(1)(a)—

Repeal

"client"

Substitute

"direct client".

(3) Section 226ZA(1)(b), after "CCP-related transaction"—

Add

"or an offsetting transaction".

(4) Section 226ZA(2)(a)—

Repeal

"client"

Substitute

"direct client".

(5) Section 226ZA(2)(b), after "CCP-related transaction"—

Add

"or offsetting transaction".

(6) Section 226ZA(3) and (4)—

Repeal

"and (3)"

Substitute

", (2A) and (3) and section 226W(5)".

(7) Section 226ZA(6)(a), before "for the relevant transaction"—

Add

"with the CCP".

(8) Section 226ZA(6)(a)(ii) and (iii)—

Repeal

"clients"

Substitute

"direct clients".

(9) Section 226ZA(6)—

Repeal paragraph (b)

Substitute

"(b) the institution—

(i) has conducted a sufficient legal review and undertakes such further review as necessary to ensure continuing enforceability; and

(ii) has a well-founded basis to conclude that, in the event of a challenge in a court of law or before an administrative authority, the relevant court or administrative authority would find that the arrangements referred to in paragraph (a) would be legal, valid, binding and enforceable under the relevant laws of the relevant jurisdictions; and".

(10) Section 226ZA(6)(c)—

Repeal

"transaction with"

Substitute

"transaction between the CCP and".

90. Section 226ZB amended (exposures of clients to CCPs)

(1) Section 226ZB, heading—

Repeal

"**clients**"

Substitute

"**direct clients**".

(2) Section 226ZB(1)—

Repeal

"client"

Substitute

"direct client".

(3) Section 226ZB(2), after "default risk exposure to"—

Repeal

"a qualifying CCP arising from the relevant transaction in accordance with section 226X(1), (2) and (3)"

Substitute

"the CCP arising from the relevant transaction in accordance with section 226X(1), (2), (2A) and (3) and section 226W(5)".

(4) Section 226ZB(3)—

Repeal

"and (3)"

Substitute

", (2A) and (3) and section 226W(5)".

91. New section 226ZBA added

After section 226ZB—

Add

"**226ZBA. Exposure of clients to clients within multi-level client structure**

(1) Subject to subsections (5) and (6), if an authorized institution that is a client within a multi-level client structure—

(a) enters into an offsetting transaction or a CCP-related transaction with another client (***relevant client***) within the structure (***relevant transaction***); or

(b) guarantees the performance of its client (***relevant client***) within the structure under a transaction entered into by the relevant client with a clearing member or another higher level client within the structure (***relevant transaction***),

the institution must, calculate the risk-weighted amount of its default risk exposure and CVA risk-weighted amount in respect of the relevant client arising from the relevant transaction in accordance with Part 4, 5 or 6, as the case requires, and Division 3.

(2) An authorized institution that has entered into a relevant transaction referred to in subsection (1)(a) for a derivative contract traded on an exchange under a bilateral agreement between the institution and the relevant client must calculate the risk-weighted amount of its default risk exposure and CVA risk-weighted amount in respect of the relevant client arising from the derivative contract as if the derivative contract were an OTC derivative transaction.

(3) In calculating the default risk exposures used in the risk-weighted amount calculation referred to in subsection (1) or (2), if the CCP concerned is a qualifying CCP, section 226Z(3) applies to the institution's netting set with its client as it applies to a clearing member's netting set with its direct client.

(4) For the purposes of subsections (1) and (2), section 226Z(2A) applies to the collateral collected by an authorized institution from another client within a multi-level client structure that has been passed on to a CCP to secure that client's transaction cleared by the CCP as if the collateral were collateral collected by an authorized institution as a clearing member from its direct clients that has been passed on to a CCP.

(5) An authorized institution that is the client of a higher level client within a multi-level client structure associated with a qualifying CCP may calculate the risk-weighted amount of its default risk exposure to the higher level client arising from the relevant transaction—

(a) if all the conditions set out in section 226ZA(6), with all necessary modifications, are met at every level of the chain of intermediaries between the CCP and the institution—in accordance with section 226X(1), (2), (2A) and (3) and section 226W(5) as if its default risk exposure were to the CCP; or

(b) if all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)), with all necessary modifications, are met at every level of the chain of intermediaries between the CCP and the institution—in accordance with section 226X(1), (2), (2A) and (3) and section 226W(5) as if its default risk exposure were to the CCP except that the applicable risk-weight must be 4% instead of 2%.

(6) An authorized institution that is the client of a higher level client within a multi-level client structure associated with a non-qualifying CCP may calculate the risk-weighted amount of its default risk exposure to the higher level client arising from the relevant transaction in accordance with section 226ZD(1) as if its default risk exposure were to the CCP, if all the conditions set out in section 226ZA(6) (excluding the condition set out in section 226ZA(6)(a)(iii)), with all necessary modifications, are met at every level of the chain of intermediaries between the CCP and the institution.".

92. Section 226ZD amended (exposures of clearing members to non-qualifying CCPs)

(1) Section 226ZD(1)(b)—

Repeal

"clients for any loss due to changes in the value of the"

Substitute

"direct clients for any loss due to changes in the value of the direct".

(2) Section 226ZD—

Repeal subsection (1A)

Substitute

"(1A) To avoid doubt, for the purposes of subsection (1), if there is recognized credit risk mitigation not captured in the calculation of the default risk exposure to the non-qualifying CCP, the recognized credit risk mitigation may be taken into account in the calculation of the risk-weighted amount of the exposure only if this is conducted in accordance with Part 4.".

(3) Section 226ZD(2)—

Repeal

"subsection (3)"

Substitute

"subsections (3) and (5)".

(4) Section 226ZD, at the end—

Add

"(5) An authorized institution may assign a risk-weight of 0% to its funded default fund contribution to a non-qualifying CCP, to the extent of the amount for covering settlement-risk only products.".

93. Section 226ZE amended (treatment of posted collateral)

(1) Section 226ZE—

Repeal subsection (1)

Substitute

"(1) Subject to subsections (2), (3) and (4), if—

(a) an authorized institution has posted collateral to a CCP, a CCP's clearing member or a higher level client; and

(b) the collateral is unsegregated collateral,

the institution must, in respect of the collateral, calculate the risk-weighted amount of its credit exposure to the person holding the collateral in accordance with Part 4, 5 or 6, as the case requires.".

(2) Section 226ZE(4)—

Repeal

"of a clearing member of a CCP and has posted collateral for transactions with the"

Substitute

"and has posted collateral for transactions cleared by a".

(3) Section226ZE(4)(b)—

Repeal

"and the other clients of the clearing member"

Substitute

", the clearing member's direct clients, and, where applicable, the relevant higher level clients".

(4) Section 226ZE—

Repeal subsection (5)

Substitute

"(5) Subject to subsection (6), if—

(a) an authorized institution is a client and has posted unsegregated collateral for transactions cleared by a CCP; and

(b) the collateral is held by the CCP on the institution's behalf,

the institution must calculate the risk-weighted amount of its default risk exposure to the clearing member or the higher level client concerned, as the case may be, in respect of the collateral by assigning a risk-weight applicable to the clearing member or the higher level client in accordance with Part 4, 5 or 6, as the case requires.".

(5) Section 226ZE(6)—

Repeal

"client of a clearing member of a CCP and has a credit exposure"

Substitute

"direct client of a clearing member of a CCP and has a default risk exposure".

(6) Section 226ZE—

Repeal subsection (6A)

Substitute

"(6A) Subsections (1) and (2) do not apply to posted collateral that is—

(a) a default risk exposure to a CCP referred to in section 226V(2)(a)(i) or (ii); or

(b) included in the calculation of the default risk exposure to a CCP, clearing member or higher level client under Division 1A, 2, 2B or 2C.".

(7) Section 226ZE(7)(a)—

Repeal

"under section 226V(2)(a)"

94. Section 227 amended (interpretation of Part 7)

Section 227(1), definition of ***principal amount***, paragraph (b), after "securitization exposure"—

Add

"(other than default risk exposure)".

95. Section 313 amended (counterparty credit risk)

(1) Section 313(2), after "buyer"—

Add

"or protection seller".

(2) Section 313—

Repeal subsections (3) and (4).

(3) Section 313(5)(b), after "method"—

Add

", the SA-CCR approach".

96. Section 321 amended (counterparty credit risk)

(1) Section 321(2), after "buyer"—

Add

"or protection seller".

(2) Section 321—

Repeal subsections (3) and (4).

(3) Section 321(5)(b)—

Repeal

"current exposure method"

Substitute

"SA-CCR approach".

97. Schedule 1A amended (transactions and contracts not subject to CVA capital charge)

(1) Schedule 1A, section 1(a)—

Repeal

", credit derivative contracts".

(2) Schedule 1A, section 1—

Repeal paragraphs (b) and (c)

Substitute

"(b) OTC derivative transactions and SFTs with a clearing member of a CCP that fall within section 226ZA(3), (4) or (5) of these Rules where the authorized institution concerned is a direct client of the clearing member;

(c) OTC derivative transactions and SFTs with a CCP that fall within section 226ZB(2), (3) or (4) of these Rules where the authorized institution concerned is a direct client of a clearing member of the CCP;

(ca) OTC derivative transactions and SFTs cleared by a CCP that fall within section 226ZBA(5) or (6) where the authorized institution concerned is an indirect client within a multi-level client structure associated with the CCP;".

(3) Schedule 1A, section 1(d)(i)(A)—

Repeal

", credit derivative contracts".

(4) Schedule 1A, section 1(d)(i)(B)—

Repeal

", credit derivative contracts and SFTs that fall within paragraph (a), (b), (c)"

Substitute

"and SFTs that fall within paragraph (a), (b), (c), (ca)".

(5) Schedule 1A, section 1(e)—

Repeal

", credit derivative contracts and SFTs (other than those falling within paragraph (a), (b), (c)"

Substitute

"and SFTs (other than those falling within paragraph (a), (b), (c), (ca)".

(6) Schedule 1A, section 1(e)(i)—

Repeal

"or contracts".

98. Schedule 2A amended (minimum requirements to be satisfied for approval under section 10B(2)(a) of these Rules to use IMM(CCR) approach)

(1) Schedule 2A, section 1(e)(ii)(A)—

Repeal

"226L(3) of these Rules) and variation margins (within the meaning of section 226V(1)"

Substitute

"226A of these Rules) and variation margins (within the meaning of section 226A".

(2) Schedule 2A—

Repeal section 7.

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

(1) Schedule 7, heading—

Repeal

"**for comprehensive approach to treatment of recognized collateral**"

(2) Schedule 7, section 1—

Repeal

"An authorized institution which uses the comprehensive approach to the treatment of recognized collateral shall use the standard supervisory haircuts set out in the Table to take into account the price volatility of both the exposure and the collateral."

Substitute

"The standard supervisory haircuts for taking into account the volatilities of the values of exposures (including exposures in the form of unsegregated collateral posted) and collateral are set out in the Table.".

(3) Schedule 7, section 2—

Repeal paragraph (e)

Substitute

"(e) ***recognized collateral***—

(i) in relation to the calculation of default risk exposure by using the SA-CCR approach or IMM(CCR) approach—means collateral referred to in section X30(3) or 226H(3); or

(ii) in any other case—means recognized collateral within the meaning of section 51(1) or recognized financial collateral within the meaning of section 139(1);"

(4) Schedule 7, after section 2—

Add

"3. The standard supervisory haircut must be adjusted by using Formula 32 if the minimum holding period or the margin period of risk of the transaction giving rise to the exposure concerned, or the minimum holding period of the unsegregated collateral concerned, determined under these Rules is not 10 business days.

Formula 32

Adjustment of Standard Supervisory Haircuts

$$H = H_{10} \times \sqrt{\frac{P}{10}}$$

where—

H = haircut applicable to an exposure or recognized collateral, as the case requires;

H_{10} = standard supervisory haircut appropriate for the type of exposure or recognized collateral to which the exposure or recognized collateral belongs; and

P = minimum holding period or margin period of risk of the transaction giving rise to the exposure or the exposure secured by the recognized collateral, or the minimum holding period of the unsegregated collateral, as the case may be, determined in accordance with these Rules.".