

Completion Instructions

Return of Capital Adequacy Ratio Forms MA(BS)3(I) to 3(VI)

Introduction

1. This return collects information on the capital adequacy position of authorized institutions incorporated in Hong Kong.
2. The return comprises 5 Parts¹, with Part III further divided into 5 sections for reporting institutions to report the risk-weighted amounts of their credit exposures under different approaches.

<u>Part</u>		<u>Form</u>
I	Summary certificate on capital adequacy ratios	MA(BS)3(I)
II	Capital base	MA(BS)3(II)
III	a Risk-weighted amount for credit risk – basic approach	MA(BS)3(IIIa)
	b Risk-weighted amount for credit risk – standardized (credit risk) approach	MA(BS)3(IIIb)
	c Risk-weighted amount for credit risk – internal ratings-based approach	MA(BS)3(IIIc)
	d Risk-weighted amount for credit risk – securitization exposures	MA(BS)3(IIIId)
	e Risk-weighted amount for credit risk – central counterparties	MA(BS)3(IIIe)
V	Risk-weighted amount for operational risk	MA(BS)3(V)
VI	Risk-weighted amount for sovereign concentration risk	MA(BS)3(VI)

General Instructions

Layout and application

3. Instructions provided under this section apply to all forms contained in this Return. Specific instructions relating to individual forms are separately provided. Reporting institutions should complete the forms that are relevant to them in accordance with these instructions, having regard to the Banking (Capital) Rules (BCR), as well as other relevant supervisory policy/guidance related to the capital adequacy framework issued by the HKMA.
4. In completing Part VI of this Return, reporting institutions should additionally have regard to the Banking (Exposure Limits) Rules as well as other relevant supervisory policy guidance related to the large exposure framework issued by the HKMA.

¹ Part IV is intentionally omitted.

5. Parts I, II and V are applicable to all reporting institutions. For Parts IIIa to IIIc on Credit Risk, reporting institutions are required to submit form(s) for the approach(es) being used by them to risk-weight their non-securitization exposures. Parts IIId to IIIf and VI are applicable only if the institutions have exposures that are the subject of these Parts.

Combined / consolidated return

6. Where applicable, the forms should be completed both on a solo (or solo-consolidated) basis (i.e. the Combined Return) and on a consolidated basis (i.e. the Consolidated Return). Reporting institutions should make reference to the respective provisions of the BCR when reporting their solo, solo-consolidated or consolidated position (i.e. sections 29, 30 and 31 of the BCR respectively).
7. A reporting institution should include positions in the return as follows:

Solo basis	All positions of the institution and its local and overseas branches / offices.
Solo-consolidated basis	All positions of the institution, its local and overseas branches / offices and its solo-consolidated subsidiaries as defined in section 4 of the BCR.
Consolidated basis	All positions of the institution's consolidation group (including local and overseas branches) as defined in section 4 of BCR.

Reporting institutions should obtain the necessary approvals from the Monetary Authority (MA) and follow the requirements that are relevant to their choice of calculation approaches as set out in Part 2 of the BCR.

Instructions applicable to consolidated basis

8. If every member of a reporting institution's consolidation group uses the same approach in calculating the risk-weighted amount for a particular risk (i.e. credit, market, CVA, operational or sovereign concentration risk), the consolidation group should be treated as one single entity. The positions of individual members within the institution's consolidation group with respect to each of the risk types should be aggregated. The consolidated risk-weighted amounts should be calculated according to the approaches as selected for credit risk, market risk and CVA risk and the approach as prescribed for operational risk. The consolidated risk-weighted amount for sovereign concentration risk should be calculated according to Part 10 of the BCR.
9. With the prior consent of the MA, members of a reporting institution's consolidation group may use different approaches in calculating the risk-weighted amount for a particular risk (i.e. credit, market or CVA risk). Where different approaches are used, the consolidated risk-weighted amount should be calculated by aggregating the risk-weighted amounts for each of the members calculated separately (1) according to the approaches used by the member concerned for credit risk, market risk and CVA risk and (2) according to Part 10 of the BCR in respect of sovereign concentration risk.

10. Any inter-company balances, transactions, income and expenses, as the case may be, among members of the consolidation group shall be eliminated in the calculation.
11. With the prior consent of the MA, a reporting institution may be allowed to calculate the capital charge for exposures of its one or more than one subsidiary incorporated in overseas countries in accordance with the capital adequacy standards adopted by the host supervisors of these subsidiaries.

Submission dates

12. The return should show the position as at the last calendar day of each quarter and should be submitted as follows:
 - (a) Combined return – within 1 month after the end of each quarter; and
 - (b) Consolidated return – within 1 month after the end of each quarter unless otherwise advised by the HKMA; and
 - (c) If the submission deadline falls on a public holiday, it will be deferred to the next working day.

Definitions

13. Unless otherwise specified, terminology used in this return follows that of the BCR. For ease of reference, most of the main terms are printed in ***bold italics*** on their first appearance in these instructions. Reporting institutions should refer to the BCR for definitions of these terms.

Others

14. Amounts should be shown to the nearest thousand, in HK\$ or HK\$ equivalents in the case of foreign currency items. The closing middle market T/T rates prevailing at the reporting date should be used for conversion purposes.
15. Securities transactions are to be reported on trade date basis.

Hong Kong Monetary Authority
March 2025

Completion Instructions

Return of Capital Adequacy Ratio Part I – Summary Certificate on Capital Adequacy Ratios Form MA(BS)3(I)

Introduction

1. Form MA(BS)3(I) is divided into three divisions:
 - (a) Divisions A and C – to be completed by all reporting institutions (reporting AIs);
 - (b) Division B – to be completed by reporting AIs subject to the **output floor** requirement (except for the filtering question that all reporting AIs are required to answer).
2. Division A is for a reporting AI to provide summary information on its quarter-end Common Equity Tier 1 capital ratio, Tier 1 capital ratio and Total capital ratio and the relevant aggregate figures (mainly extracted from other parts of the Return) for computing the ratios. Division B collects information relating to the **output floor** by a reporting AI using a **model-based approach** to calculate its credit risk or market risk or both. Division C is for a reporting AI to report information relating to capital buffer requirements applicable to it.
3. This return and its completion instructions should be read in conjunction with the Banking (Capital) Rules (BCR) and the relevant supervisory policy/guidance on the capital adequacy framework.

Specific Instructions

Division A: Calculation of Capital Adequacy Ratios

4. The figures reported for items 1.1 to 1.3, 2.1 to 2.4¹, 2.6(i) and (ii), 2.8, 2.8a, 2.9 and 2.9a should be extracted from other parts of the Return. See **Annex I-A** for a mapping table on items in this Form and the corresponding items in other Forms.
5. For reporting AIs that are subject to the output floor requirement, the figure reported for item 2.10 should be equal to item 4 of Division B.
6. Item 2.12(i) must be completed by the reporting AI if **regulatory reserve for general banking risks** and **collective provisions** have been made for or apportioned to—
 - (a) its non-securitization exposures that are risk-weighted by using the **basic approach (BSC approach)** or the **standardized (credit risk) approach (STC approach)**; or

¹ Item 2.5 is intentionally omitted.

- (b) its **securitization exposures** that are risk-weighted by using the **securitization external ratings-based approach (SEC-ERBA)**, **securitization standardized approach (SEC-SA)** and **securitization fall-back approach (SEC-FBA)**.

The AI must report in this item the amount of the above regulatory reserve for general banking risks and collective provisions that exceeds 1.25% of the credit RWA reported under items 2.1, 2.2 and 2.6(ii). To avoid doubts, risk-weighted amount for **CCP**, if any, is excluded for the calculation of this 1.25% cap.

7. Item 2.12(ii) refers to the portion of cumulative fair value gains arising from the revaluation of the AI's holdings of land and buildings (except land and buildings mortgaged to the reporting AI to secure a debt) which is not included in Tier 2 Capital. For this purpose, whether such amount should be net or gross of deferred tax liabilities will be based on the prevailing accounting standards applicable within a given jurisdiction.

Division B: Calculation of Output Floor

8. All reporting AIs should answer the filtering question at the top of Division B by inputting either "Yes" or "No" to indicate whether the institution is subject to the output floor requirement as at the reporting date.
9. Reporting AIs using any of the model-based approaches stipulated in section 355 of the BCR are subject to the calculation of the output floor and should answer "Yes" for the filtering question and complete the rest of Division B. Other reporting AIs should go directly to Division C.

(A) Calculation of floor risk-weighted amount and actual risk-weighted amount for the application of output floor

10. A reporting AI which is subject to the output floor should calculate the difference between:
- (a) the floor risk-weighted amount for credit risk, market risk, CVA risk and operational risk as calculated in accordance with section 356 of the BCR (details to be reported under items 1(i) to (iv) respectively); and
 - (b) the actual risk-weighted amount for credit risk, market risk, CVA risk and operational risk as calculated in accordance with section 357 of the BCR (details to be reported under items 2(i) to (iv) respectively).

A reporting AI is required to report the difference in item 3 and, if any, the additional risk-weighted amount due to the application of output floor in item 4 (see section 358 of the BCR).

(B) Output Floor Level

11. A 5-year phase-in arrangement is adopted for the implementation of the output floor level (see the table below). A reporting AI is required to report its applicable output floor level according to section 356(8)² of the BCR in item 1(vi).

Calendar Year	Output floor level
2025	50%
2026	55%
2027	60%
2028	65%
2029	70%
2030 onwards	72.5%

(C) Treatment of concerned exposures

12. To determine the floor risk-weighted amount, section 356(4) of the BCR provides an optional method to risk-weight **concerned exposures** under section 356(4) of the BCR (in general, unrated **general corporate** exposures other than those (i) extended to **small business** corporates, (ii) subject to section 61(3) or (4) of the BCR, and (iii) exempted from the use of the IRB approach) according to the loan classification categories (i.e. **loan classification method**) alternate to the use of risk-weight for 100% set out in section 61(2)(a) of the BCR. Concerning this Form, the reporting AIs chosen for the loan classification method are required to report the **exposure amount** (as defined in section 51(1) of the BCR) and the risk-weighted amount of those concerned exposures in memorandum items 5 and 6 respectively.
13. Once a reporting AI chooses the loan classification method, it must apply the method consistently over time and must not change the method without the MA's prior consent under section 356(5) of the BCR. Also, the reporting AIs which select to use the loan classification method are expected to be capable of mapping these exposures to the loan classification categories by referencing the loan classification criteria in the [Guideline on Loan Classification System](#)³, internal provisioning policies and practices, and the assessment with the institution's rating system (where appropriate).

² According to section 356(9), the MA may require a reporting AI to apply an output floor level specified in a notice under certain circumstances.

³ Section 5 of the [Guideline](#) clarifies that the criteria therein could be extended to credit exposures beyond "loans", including "exposures arising from credit commitments and contingent liabilities". Without limiting the reporting AI's practice of mapping, as a general reference, the institution may consider an outline of an exemplified mapping

Division C: Capital Buffer Requirements

14. A reporting AI is required to observe the following in reporting under this Division:

Item		Reporting
1.	Net CET1 capital ratio ⁴	Report the ratio, expressed as a percentage, of (a) the amount of the AI's CET1 capital less the amount of CET1 capital that the AI requires for maintaining (i) the minimum CET1 capital ratio, Tier 1 capital ratio and Total capital ratio applicable to it as set out in section 3B of the BCR and as varied by the MA under section 97F of the Banking Ordinance and (ii) the minimum external or internal LAC risk-weighted ratio (as the case requires) that the AI is required to maintain under the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements – Banking Sector) Rules, to (b) the sum of the AI's risk-weighted amount for credit risk, risk-weighted amount for market risk, risk-weighted amount for CVA risk, risk-weighted amount for operational risk and risk-weighted amount for sovereign concentration risk, as determined in accordance with the BCR (i.e. the Total risk-weighted amount as reported under item 2.13 in Division A). Please refer to the illustrative examples in <u>Annex I-B</u> on how to calculate the net CET1 capital ratio.
2.	Buffer level	Report the buffer level that is applicable to an AI, expressed as a percentage and calculated according to section 3G of the BCR – (a) if the AI is a G-SIB or a D-SIB – Item 2.1 + 2.2 + 2.3 in this Division; or (b) in any other cases – Item 2.1 + 2.2 in this Division.
2.1	Capital conservation buffer ratio (CB ratio)	Report the CB ratio for calculating an AI's buffer level under section 3G of the BCR as at the reporting date.
2.2	Countercyclical capital buffer ratio (CCyB ratio)	Report the CCyB ratio for calculating an AI's buffer level under section 3G of the BCR as at the reporting date.

(a) if, apart from off-balance sheet exposures, the reporting AI also has a loan exposure to that particular unrated corporate obligor, it can apply the same loan classification grade of the loan exposure, where appropriate, to the off-balance sheet exposures, with adjustments to transactional characteristics as appropriate; and

(b) if not, the reporting AI could categorise the off-balance sheet exposures based on the underlying principle of loan classification (for example, an institution may consider classifying an exposure to a Pass grade by mirroring the characteristics of a Pass "loan" that the obligor or the counterparty is "current in meeting commitments and the financial standing is not in doubt").

⁴ Reporting reflects calculation requirement under section 3E(2) of the BCR.

Item		Reporting
		The CCyB ratio reported in this item should be consistent with the ratio reported in the cell labelled “CCyB ratio” in column (8) of the Quarterly Reporting on the Countercyclical Capital Buffer (Form MA(BS)25).
2.3	Higher loss absorbency ratio (HLA ratio)	Report the HLA ratio notified by the MA as applicable to the AI, if any, for calculating the AI’s buffer level under section 3G of the BCR as at the reporting date.

Hong Kong Monetary Authority
March 2025

Annex I-A

Items in MA(BS)3(I)		Cross reference with other return forms
Division A	Division B	
1.1	N/A	MA(BS)3(II) – Item (E) of Part II
1.1(i)	N/A	MA(BS)3(II) – Item (B) of Part II
1.1(ii)	N/A	MA(BS)3(II) – Item (D) of Part II
1.2	N/A	MA(BS)3(II) – Item (G) of Part II
1.3	N/A	MA(BS)3(II) – Item (H) of Part II
2.1	2(i)(a)	MA(BS)3(IIIa) – Item (A9) of Division A
2.2	2(i)(b)	MA(BS)3(IIIb) – Item (A10) of Division A
2.3	2(i)(c)	MA(BS)3(IIIc) – Item 7 of Division A
2.4	2(i)(f)	MA(BS)3(IIIe) – Item 6
2.6(i)	2(i)(e)	MA(BS)3(IIId) – Column 1 of item A5(a) of Division A
2.6(ii)	2(i)(d)	MA(BS)3(IIId) – Column 1 of items A5(b) and A6 of Division A
2.8	N/A	MA(BS)3A(I) – Item 7 of Division A or MA(BS)3A(I) – Item 11 of Division E.1 or MA(BS)3A(I) – Item 8 of Division F
N/A	2(ii)(a)	MA(BS)3A(I) – Item 8 of Division F
N/A	2(ii)(b)	MA(BS)3A(I) – Item 7 of Division A or 0 if at least one trading desk is using the IMA
N/A	2(ii)(c)	MA(BS)3A(I) – Item 11 of Division E.1
2.8a	N/A	Sum of (i) MA(BS)3A(II) – Item 1(2) of Division A and (ii) MA(BS)3A(II) – Item 6 of Division C.1 or Sum of (i) MA(BS)3A(II) – Item 1(4) of Division B and (ii) MA(BS)3A(II) – Item 6 of Division C.1 or MA(BS)3A(II) – Item 1(2) of Division D
N/A	2(iii)(a)	MA(BS)3A(II) – Item 1(2) of Division A or

Items in MA(BS)3(I)		Cross reference with other return forms
Division A	Division B	
		MA(BS)3A(II) – Item 1(4) of Division B
N/A	2(iii)(b)	MA(BS)3A(II) – Item 6 of Division C.1
N/A	2(iii)(c)	MA(BS)3A(II) – Item 1(2) of Division D
2.9	1(iv) 2(iv)	MA(BS)3(V) – Item 4 of Division A
2.9a	N/A	MA(BS)3(VI) – Item 2
2.10	N/A	MA(BS)3(I) – Item 4 of Division B

Annex I-B

Illustrative examples to calculate the net CET1 capital ratio

Scenario 1

Suppose Bank A is classified as a resolution entity under the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements – Banking Sector) Rules (AI LAC Rules). Bank A's risk-weighted amount is 100 units and it has 15 units of Total capital (comprising 14 units of CET1 capital and 1 unit of Tier 2 capital) and 8 units of non-capital LAC debt resources. Therefore, the CET1 capital ratio, Tier 1 capital ratio, Total capital ratio and external LAC risk-weighted ratio of Bank A are 14%, 14%, 15% and 23% respectively.

Taking into account Bank A's minimum capital adequacy and loss-absorbency capacity (LAC) requirements (assuming 5.3%, 7.1%, 9.5% and 19% for CET1 capital ratio, Tier 1 capital ratio, Total capital ratio and external LAC risk-weighted ratio respectively in this scenario), the calculation of the net CET1 capital ratio includes the following steps:

Tier of capital / LAC	CARs of Bank A	Bank A's capital requirement⁵ (as varied under s.97F of the BO)	CET1 capital required to meet Bank A's capital requirement	Remarks
CET1 capital	14.0%	5.3%	5.3 units	
Tier 1 capital	14.0%	7.1%	$= 5.3 + (7.1 - 5.3)$ $= 5.3 + 1.8$ $= 7.1$ units	Since Bank A has no Additional Tier 1 capital, the bank must make use of an additional 1.8 unit of CET1 capital to meet its Tier 1 capital requirement
Total capital	15.0%	9.5%	$= 7.1 + [(9.5 - 7.1) - 1]$ $= 7.1 + 1.4$ $= 8.5$ units	Since Bank A has only 1 unit of Tier 2 capital and no Additional Tier 1 capital, the bank must make use of an additional 1.4 unit of CET1 capital to meet its total capital requirement

⁵ Please refer to subsection 3.5 of the HKMA Supervisory Policy Manual module CA-G-5 *Supervisory Review Process* for details on the apportionment of the P2A to the three minimum capital ratios (<http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/supervisory-policy-manual/CA-G-5.pdf>).

Tier of capital / LAC	External LAC risk-weighted ratio of Bank A	Bank A's minimum external LAC risk-weighted ratio (as determined under Part 4 of the AI LAC Rules)	CET1 capital required to meet Bank A's LAC requirement	Remarks
External LAC	23%	19%	$= 8.5 + [(19 - 9.5) - 8]$ $= 8.5 + 1.5$ $= 10 \text{ units}$	Since Bank A has only 8 units of non-capital LAC debt resources with no available Additional Tier 1 capital or Tier 2 capital (other than those mentioned above), the bank must make use of an additional 1.5 units of CET1 capital to meet its total LAC requirement

Net CET1 Capital	$= 14.0 - 10.0$ $= 4.0 \text{ units}$
Net CET1 Capital Ratio	$= 4.0 / 100$ $= 4.0\%$

Scenario 2

Suppose Bank B is classified as a resolution entity under the AI LAC Rules. Bank B's risk-weighted amount is 100 units and it has 18 units of Total capital (comprising 14 units of CET1 capital, 2 units of Additional Tier 1 capital and 2 units of Tier 2 capital) and 8 units of non-capital LAC debt resources. Therefore, the CET1 capital ratio, Tier 1 capital ratio, Total capital ratio and external LAC risk-weighted ratio of Bank B are 14%, 16%, 18% and 26% respectively.

Taking into account Bank B's minimum capital adequacy and LAC requirements (assuming 5.3%, 7.1%, 9.5% and 19% for CET1 capital ratio, Tier 1 capital ratio, Total capital ratio and external LAC risk-weighted ratio respectively in this scenario), the calculation of the net CET1 capital ratio includes the following steps:

Tier of capital / LAC	CARs of Bank B	Bank B's capital requirement⁵ (as varied under s.97F of the BO)	CET1 capital required to meet Bank B's capital requirement	Remarks
CET1 capital	14.0%	5.3%	5.3 units	
Tier 1 capital	16.0%	7.1%	5.3 units	Since Bank B has 2 units of Additional Tier 1 capital, the bank does not need to make use of additional units of CET1 capital to meet its Tier 1 capital requirement
Total capital	18.0%	9.5%	$= 9.5 - 2 - 2$ $= 5.5$ units	Since Bank B has 2 units of Additional Tier 1 capital and 2 units of Tier 2 capital, the bank needs to make use of an additional 0.2 unit of CET1 capital to meet its total capital requirement

Tier of capital / LAC	External LAC risk-weighted ratio of Bank B	Bank B's minimum external LAC risk-weighted ratio (as determined under Part 4 of the AI LAC Rules)	CET1 capital required to meet Bank B's LAC requirement	Remarks
External LAC	26%	19%	$= 19 - 2 - 2 - 8$ $= 7$ units	Since Bank B has 2 units of Additional Tier 1 capital, 2 units of Tier 2 capital and 8 units of non-capital LAC debt resources, the bank need to make use of an additional 1.5 units of CET1 capital to meet its total LAC requirement

Net CET 1 Capital	$= 14.0 - 7.0$ $= 7.0$ units
Net CET1 Capital Ratio	$= 7.0 / 100$ $= 7.0\%$

Completion Instructions

Return of Capital Adequacy Ratio Part II – Capital Base Form MA(BS)3(II)

Introduction

1. Form MA(BS)3(II) should be completed by an authorized institution (the institution) incorporated in Hong Kong to determine its capital base for the calculation of capital adequacy ratios (CAR).
2. This Form and its completion instructions should be read in conjunction with Banking (Capital) Rules (BCR) and the relevant supervisory policy/guidance as applicable.
3. The institution shall refer to sections 2, 3 and 35 of the BCR for the interpretation of the terms used in this form and its completion instructions.
4. The overall structure of the capital base calculation according to Part 3 of the BCR is as follows –

Table A

	Components of Capital Base	Reference to the BCR
(A1)	Elements of Common Equity Tier 1 (CET1) Capital	Sections 38(1) and (3)
(A2)	Deductions from CET1 Capital (including items excluded under section 38(2))	Sections 38(2) and 43 to 46
(A3)	CET1 Capital = A1 – A2	
(A4)	Elements of Additional Tier 1 (AT1) Capital	Section 39
(A5)	Deductions from AT1 Capital	Section 47
(A6)	AT1 Capital = A4 – A5	
(A7)	Tier 1 (T1) Capital = A3 + A6	Section 37
(A8)	Elements of Tier 2 (T2) Capital	Section 40
(A9)	Deductions from T2 Capital	Section 48
(A10)	T2 Capital = A8 – A9	
(A11)	Total Capital = A7 + A10	Section 36

Specific Instructions

Item

Nature of item

Part II

Capital Base

5. For the purpose of calculating the institution's CAR, the capital base of the institution shall be the sum of the institution's Tier 1 capital (being the sum of the Common Equity Tier 1 (CET1) capital and Additional Tier 1 capital) and Tier 2 capital, calculated in Hong Kong dollars after taking into account items excluded under section 38(2) and regulatory deductions specified in Part 3 Division 4 of the BCR.
6. The institution shall include in its CET1 capital, Additional Tier 1 capital or Tier 2 capital the proceeds of eligible instruments only to the extent that the instruments have been paid-up and are immediately available to the issuer of the instrument; or in the case of Additional Tier 1 or Tier 2 capital instruments are not issued out of an operating entity or any holding company of the institution, an operating entity or the holding company of the institution, as the case may be.
7. As outlined in paragraphs 55 and 78, if the institution has insufficient capital in a particular tier from which to make the required deductions, the remainder of the deduction amount (i.e. after bringing the net capital for that tier to zero) should be deducted from the next higher tier of capital. There are specific line items on the return to accommodate these transfers in deductions up the tiers.

<u>Item</u>	<u>Nature of item</u>
Category I	Common Equity Tier 1 capital¹
(a)	<u>CET1 capital instruments</u> 8. Report the institution's (in case it is a joint-stock company) paid-up ordinary share capital (including voting ordinary shares and ordinary shares ranking equally with voting ordinary shares in all respects except the absence of voting rights) that meets the <i>Qualifying Criteria to be Met to be CET1 Capital</i> (CET1 Qualifying Criteria) set out in Schedule 4A of the BCR except any shares issued by the institution by virtue of capitalizing any property revaluation reserves of the institution referred to in item (l) of Category III below. 9. Report the institution's (in case it is an entity other than a joint-stock company) capital instrument that is equivalent to ordinary shares in terms of loss absorption and meets the CET1 Qualifying Criteria set out in Schedule 4A of the BCR.
(b)	<u>Share premium</u> 10. Report the amount of the institution's share premium arising from the issue of CET1 capital instruments referred to in item (a) of Category I above.
(c)	<u>Retained earnings</u> 11. Report in item (c) the amount of profits and losses of the institution brought forward pursuant to prevailing accounting standards as at a particular date which include the institution's — (i) unaudited profit or loss for the current financial year; and (ii) profit or loss of the immediately preceding financial year pending audit completion. The amount of profits and losses, if any, that has been related to sub-paragraphs (i) and (ii) above should be separately reported in item (c)(i).

¹ Any capital instruments issued to third parties via a special purpose vehicle must not be included in an institution's CET1 capital.

(d) Disclosed reserves²

12. Report the institution's disclosed reserves in item (d). The amount of revaluation reserves in relation to financial assets at fair value through other comprehensive income that has been included in item (d) should be separately reported in item (d)(i).

(e) Minority interests arising from CET1 capital instruments issued by the consolidated bank subsidiaries of the institution and held by third parties

13. Where the MA requires under section 3C of the BCR that the CAR of the institution is to be calculated on a ***consolidated basis*** in respect of the institution's bank subsidiaries, report in item (e) the applicable amount of minority interests, arising from the CET1 capital instruments issued by the consolidated bank subsidiaries of the institution (including retained earnings and reserves) and held by third parties, which is recognized as CET1 capital of the institution on a consolidated basis, as calculated in accordance with sections 2(1) and 3 of Schedule 4D (*Requirements to be Met for Minority Interests and Capital Instruments Issued by Consolidated Bank Subsidiaries and Held by Third Parties to be Included in Authorized Institution's Capital Base*) of the BCR.
14. The maximum amount of minority interests in the bank subsidiary that can be included in the CET1 capital of the institution on a consolidated basis is calculated as:

$$A - (B * C)$$

where:

A gross amount of total qualifying CET1 capital instruments of the bank subsidiary issued to third parties

B (*If the bank subsidiary is incorporated in Hong Kong*)

surplus CET1 capital of the subsidiary = CET1 capital of the bank subsidiary (after taking into account items under section 38(2) and deductions under sections 43 to 46 of the BCR) less the lower of –

- i. the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk and sovereign concentration risk of the bank subsidiary, calculated on a solo basis or a solo-consolidated

² Excluding the amount of retained earnings reported in item (c) above.

basis, as the case may be, multiplied by the percentage equal to the sum of –

- (I) the minimum CET1 capital ratio that the bank subsidiary must comply with, on a solo basis or a solo-consolidated basis, as the case may be, under section 3B of the BCR, and if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
- (II) the buffer level applicable to the bank subsidiary under section 3G of the BCR, or

(Item i. corresponds to the minimum CET1 capital requirement of the bank subsidiary plus the buffer level applicable to the bank subsidiary)

- ii. the portion of the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk and sovereign concentration risk of the institution calculated on a consolidated basis, that relates to the bank subsidiary, multiplied by the percentage equal to the sum of –

- (I) the minimum CET1 capital ratio that the institution must comply with on a consolidated basis, under section 3B of the BCR and, if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
- (II) the buffer level applicable to the institution under section 3G of the BCR.

(Item ii. corresponds to the portion, calculated as the consolidated minimum CET1 capital requirement plus the buffer level applicable to the institution)

Or

(If the bank subsidiary is not incorporated in Hong Kong)

surplus CET1 capital of the subsidiary = CET1 capital of the bank subsidiary (after taking into account items under section 38(2) and deductions under sections 43 to 46 of the BCR) less –

- iii. the portion of the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk

and sovereign concentration risk of the institution calculated on a consolidated basis, that relates to the bank subsidiary, multiplied by the percentage equal to the sum of –

- (I) the minimum CET1 capital ratio that the institution must comply with on a consolidated basis, under section 3B of the BCR and, if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
- (II) the buffer level applicable to the institution under section 3G of the BCR.

(Item iii. corresponds to the portion, calculated as the consolidated minimum CET1 capital requirement plus the buffer level applicable to the institution)

Note:

An institution may choose to use **4.5% (*substitute percentage*)** instead of the specified minimum ratio referred to in items B.i.(I), B.ii.(I) and B.iii.(I) above.

C percentage of CET1 capital instruments of the bank subsidiary held by third parties

- 15. The calculation as shown above must be undertaken for each individual bank subsidiary separately. If the institution has chosen to use the substitute percentage, it must not, without the MA's prior consent, use the specified minimum ratio subsequently. In addition, an institution must use only either the specified minimum ratio or the substitute percentage in respect of all of its bank subsidiaries that are members of its consolidation group.
- 16. **Annex II-A** is an illustrative example on how to calculate the applicable amount of minority interests and capital instruments issued by consolidated bank subsidiaries and held by third parties to be included in an institution's capital base.

CET1 Capital Before Deductions (A)

17. This is the sum of items (a) to (e) in Column 2.

Regulatory deductions from CET1 Capital

18. The institution must exclude/deduct items (f)(i) to (f)(xxii) from its CET1 capital, if applicable, in accordance with the provisions set out in Part 3 of the BCR.

With respect to the regulatory deduction of an institution's LAC investments in capital instruments issued by or non-capital LAC liabilities of financial sector entities and capital investments in commercial entities, **Annex II-B** provides an illustration showing the relevant components of different types of LAC investments and loans, facilities or credit exposures that are required to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital under the BCR.

(f)(i) Cumulative cash flow hedge reserves that relate to the hedging of financial instruments that are not fair-valued on the balance sheet

19. Report the amount of cumulative cash flow hedge reserves that relates to the hedging of financial instruments that are not fair-valued on the balance sheet (including projected cash flows) in this item. **Net fair value losses on revaluation of cash flow hedge should be added back to the institution's CET1 capital and reported in item (f)(i) with a negative sign.**

(f)(ii) Cumulative fair value gains or losses on liabilities of the institution that are fair-valued and result from changes in the institution's own credit risk

20. Report the amount of cumulative fair value gains or losses on liabilities of the institution that are fair-valued and result from changes in the institution's own credit risk except any debit valuation adjustments for derivative contracts arising from the institution's own credit risk referred to in item (f)(xii). **Net fair value losses on revaluation of liabilities arising from changes in the institution's own credit risk should be added back to the institution's CET1 capital and reported in item (f)(ii) with a negative sign.**

(f)(iii) Cumulative fair value gains arising from the revaluation of land and buildings

21. Report the amount of –

- (i) cumulative fair value gains arising from the revaluation of the institution's holdings of land and buildings (whether for the institution's own use or for investment purposes); and
- (ii) cumulative fair value gains generated from any transaction or arrangement entered into between the institution and another member of the institution's consolidation group involving the disposal of land and buildings (whether for the institution's own use or for investment purposes) that are held by the institution, or that other member, unless otherwise approved by the MA.

For the avoidance of doubt, such gains whether net or gross of deferred tax liability should be based on the prevailing accounting standards applicable within a given jurisdiction.

(f)(iv) Regulatory reserve for general banking risks³

- 22. Report the institution's regulatory reserve for general banking risks (either by earmarking approach or appropriation approach) referred to in section 38(2)(e) of the BCR.

(f)(v) Goodwill

- 23. Report the amount of any goodwill that is recognized by the institution as an intangible asset of the institution, net of any associated deferred tax liabilities.

(f)(vi) Other Intangible Assets

- 24. Report the amount of other intangible assets (including mortgage servicing rights) of the institution, net of any associated deferred tax liabilities. The amount of mortgage servicing rights that has been included in this item should be separately reported under item (f)(vi)(1).

(f)(vii) Defined benefit pension fund assets

- 25. Report the assets of any defined benefit pension fund or plan (except those of such assets to which the institution can demonstrate to the satisfaction of the MA that it has unrestricted and unfettered access), net of the amount of obligations under the fund or plan and any associated deferred tax liabilities.

³ Please refer to the HKMA's Regulatory Treatment of Expected Loss Provisions under Hong Kong Financial Reporting Standard 9 in Annex II-C.

- (f)(viii) Deferred tax assets in excess of deferred tax liabilities
26. Report the amount of deferred tax assets, net of deferred tax liabilities (excluding those associated with and already net against the deduction of the amount of goodwill, other intangible assets and assets of any defined benefit pension fund or plan) of the institution.
27. Deferred tax assets may be netted with deferred tax liabilities only if the deferred tax assets and deferred tax liabilities relate to taxes levied by the same taxation authority and offsetting is permitted by the relevant taxation authority.
- (f)(ix) Credit-enhancing interest-only strip, and any gain-on-sale and other increase in the CET1 capital arising from securitization transactions
28. Report the amount of any credit-enhancing interest-only strip, and gain-on-sale and other increase in the CET1 capital resulting from securitization transactions (whether held in the banking book or trading book) in which the institution is the originating institution.
- (f)(x) Securitization exposures specified in a notice given by the MA
29. Report the amount of any securitization exposure of the institution (whether held in the banking book or trading book) that the MA may, by notice in writing given to the institution, require the institution to deduct from its CET1 capital.
- (f)(xi) Valuation adjustments
30. Where the application of paragraph 4.5 of the SPM module on “Financial Instrument Fair Value Practices” (CA-S-10) has led to a lower carrying value than actually recognized under the current financial reporting standards as a result of valuation adjustments made, the absolute value of the difference should be reported in item (f)(xi) except:
- (i) if that exposure is a financial instrument that gives rise to the cash flow hedge reserves that fall within item (f)(i) above; and
 - (ii) such part of the absolute value that have been taken into account in the calculation of the amount of the institution’s retained earnings or other disclosed reserves (or part of the retained earnings or other disclosed reserves) that fall within items (c) and (d) above.

- (f)(xii) Debit valuation adjustments (DVAs) in respect of derivative contracts
31. Report the amount of any DVAs made by the institution in respect of derivative contracts arising from the institution's own credit risk (which must not be offset by any accounting valuation adjustments arising from the institution's counterparty credit risk).
- (f)(xiii) Excess of **total EL amount** over **total eligible provisions**⁴ under the IRB Approach
32. For an institution that adopts the IRB approach for its credit risk, if its total EL amount exceeds its total eligible provisions, it must deduct the excess amount of total EL amount over total eligible provisions from the institution's CET1 capital.
- (f)(xiv) Cumulative losses below depreciated cost arising from the institution's holdings of land and buildings
33. Report any cumulative losses⁵ of the institution arising from the institution's holdings of land and buildings below the depreciated cost value (whether or not any such land and buildings are held for the institution's own-use or for investment purposes) referred to in section 41(4) of the BCR.
- (f)(xv) Capital shortfall of regulated non-bank subsidiaries
34. Report the amount of any relevant capital shortfall as specified in a notice under section 45(1)(b) of the BCR given to the institution in respect of a subsidiary of the institution that is a securities firm or insurance firm.
35. The capital shortfall amount to be reported in item (f)(xv) is in addition to any other deductions the institution is required to make above, as applicable, from its CET1 capital in respect of the subsidiary concerned of the institution; and represents the amount by which that subsidiary is deficient in meeting its minimum capital requirements.
36. For the avoidance of doubt, the institution's investment in any of its subsidiary securities and/or insurance firms which are

⁴ Please refer to the HKMA's Regulatory Treatment of Expected Loss Provisions under Hong Kong Financial Reporting Standard 9 in Annex II-C.

⁵ The "cumulative losses" here refer to the losses represented by any negative difference between the fair value and the depreciated cost value of the institution's properties (the latter is calculated as the cost of the building minus its accumulated depreciation, if any). To the extent that any amount of such "cumulative losses" has not been recognized as "impairment loss" through profit and loss account, the amount will need to be deducted from CET1 capital.

subject to deductions above, as applicable, should be net of any goodwill relating to such investment in subsidiary securities and/or insurance firms which is already deducted from CET1 capital and reported in item (f)(v) above.

(f)(xvi)

Investments in own CET1 capital instruments

37. Report the amount of any direct, indirect and synthetic holdings by the institution of its own CET1 capital instruments, unless already derecognized under applicable accounting standards, calculated in accordance with Schedule 4E of the BCR. For this purpose, the institution must:
- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;
 - (ii) reduce the amount to be deducted under item (f)(xvi) by any amount of goodwill (related to any holdings of shares falling within such item) already deducted under section 43(1)(a) of the BCR; and
 - (iii) include in the amount to be deducted under item (f)(xvi) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(f)(xvii)

Reciprocal cross holdings in CET1 capital instruments

38. Report the amount of any direct, indirect and synthetic holdings by the institution of CET1 capital instruments issued by any financial sector entities where that entity has a reciprocal cross holding with the institution. For this purpose, the institution must:
- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;

- (ii) reduce the amount to be deducted under item (f)(xvii) by any amount of goodwill (related to any holdings of shares falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (f)(xvii) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(f)(xviii) Capital investment in a connected company which is a commercial entity

(f)(xviii)(1) Loans, facilities or other credit exposures that is required by section 46(1) of BCR to be aggregated with item (f)(xviii)

39. Report in item (f)(xviii) the amount of the sum of the following to the extent that such sum is in excess of 15% of the capital base of the institution as reported in its capital adequacy ratio return as at the immediately preceding calendar quarter end date:
- (i) the net book value of any capital investment in a connected company of the institution where that connected company is a commercial entity; and
 - (ii) any loans, facilities or other credit exposures provided by the institution to any connected company of the institution where the connected company is a commercial entity as if such loans, facilities or other credit exposures were direct capital investment by the institution in the commercial entity, except where the institution demonstrates to the satisfaction of the MA that any such loan was made, facility granted or other credit exposure incurred in the ordinary course of business.

40. Report separately in item (f)(xviii)(1) the amount of any loans, facilities or other credit exposures described in paragraph 39(ii) above that is included in the amount reported in item (f)(xviii).

(f)(xix) Insignificant LAC investments in CET1 capital instruments issued by financial sector entities that are not subject to consolidation under a section 3C requirement and not covered by the 10% threshold
(f)(xix)(1) Loans, facilities or other credit exposures that is required by section 46(2) of BCR to be aggregated with item (f)(xix)

41. Subject to paragraphs 42 and 43, report in item (f)(xix) the sum of the applicable amounts of the following:

- (i) the amount of direct, indirect and synthetic holdings of CET1 capital instruments issued by financial sector entities, calculated in accordance with Schedule 4F of the BCR, if – (a) the entities are not the subject of consolidation under a section 3C requirement **imposed on the institution**; (b) the holdings are **insignificant LAC investments**; and (c) the holdings do not otherwise fall within items (f)(xvi) and (f)(xvii) above; and
- (ii) any loans, facilities or other credit exposures provided by the institution to any connected companies of the institution where the connected company is a financial sector entity, except where the institution demonstrates to the satisfaction of the MA that any such loan was made, facility was granted or any such other credit exposure was incurred in the ordinary course of the institution's business.

42. For the purposes of paragraph 41(i), the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;
- (ii) reduce the amount to be deducted under item (f)(xix) by any amount of goodwill (related to any holdings of shares falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (f)(xix) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting

treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

43. The applicable amount to be deducted from the institution's CET1 capital under paragraph 41 above should be determined by the formula in the first column of the following table:

<u>Applicable Amount</u>	<u>Reference to Schedule 4F of the BCR</u>
<u>(For deduction of holdings by an institution that is a “section 2 institution” as defined in section 2 of Schedule 4F to the BCR⁶)</u>	
<i>Excess(10% threshold)(net long) * CET1 percentage</i>	<u>Sections 1, 2, 4</u>
<u>(For deduction of holdings by an institution that is a “section 3 institution” (within the meaning of section 3 of Schedule 4F to the BCR) or treated as such by virtue of section 2(2) of Schedule 4F)</u>	
<i>Excess(10% threshold)(net long) * CET1 percentage</i>	<u>Sections 1, 3, 4</u>

Annex II-D is an illustrative example on how to calculate the applicable amount of insignificant and significant LAC investments to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital.

44. Report separately in item (f)(xix)(1) the amount of any loans, facilities or other credit exposures described in paragraph 41(ii) above that is included in the amount reported in item (f)(xix).
45. The amount of insignificant LAC investments issued by financial sector entities that do not exceed the 10% threshold referred to in paragraph 43 above and that are not deducted from an institution's CET1 capital is to continue to be risk-weighted in accordance with the applicable risk-weight under one or more of Parts 4, 5, 6 and 8 of the BCR, as the case requires.

⁶ (Viz., a **resolution entity** or **material subsidiary** but exclude any material subsidiary that has obtained the MA's prior consent to be treated as a “**section 3 institution**” (within the meaning of section 3 of Schedule 4F)).

- (f)(xx) Significant LAC investments in CET1 capital instruments issued by financial sector entities that are not subject to consolidation under a section 3C requirement and not covered by the 10% threshold
- (f)(xx)(1) Loans, facilities or other credit exposures provided that is required by section 46(2) of BCR to be aggregated with item (f)(xx)

46. Subject to paragraphs 47 and 48, report in item (f)(xx) the sum of the applicable amounts of the following:

- (i) the amount of the institution's direct, indirect and synthetic holdings of CET1 capital instruments issued by financial sector entities, calculated in accordance with Schedule 4G, if – (a) the entities are not the subject of consolidation under a section 3C requirement imposed on the institution; (b) the holdings are **significant LAC investments**; and (c) the holdings do not otherwise fall within items (f)(xvi) and (f)(xvii) above; and
- (ii) any loans, facilities or other credit exposures provided by the institution to any connected company of the institution where the connected company is a financial sector entity, except where the institution demonstrates to the satisfaction of the MA that any such loan was made, facility was granted, or any such other credit exposure was incurred, in the ordinary course of the institution's business.

47. For the purposes of paragraph 46(i), the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;
- (ii) reduce the amount to be deducted under item (f)(xx) by any amount of goodwill (related to any holdings of shares falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (f)(xx) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the

institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

48. For the purpose of determining the applicable amount of an institution's significant LAC investment in CET1 capital instruments issued by financial sector entities referred to in paragraph 46 above, such amount must be calculated by:

$$(G - H)$$

where:

G gross amount of the institution's significant LAC investments that are CET1 capital instruments issued by and credit exposures to financial sector entities, as described in paragraphs 46(i) and (ii) above

H 10% of the institution's CET1 capital, calculated after applying all deductions under items (f)(i) to (f)(xix), (f)(xxi) and (f)(xxii)

Annex II-D is an illustrative example on how to calculate the applicable amount of insignificant and significant LAC investments to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital.

49. Report separately in item (f)(xx)(1) the amount of any loans, facilities or other credit exposures described in paragraph 46(ii) above that is included in the amount reported in item (f)(xx).
50. The amount of an institution's significant LAC investments that are CET1 capital instruments of a financial sector entity that does not exceed the 10% threshold referred to in paragraph 48 above and that is not deducted from its CET1 capital must be risk-weighted at 250%.

(f)(xxi) Direct holdings of CET1 capital instruments issued by financial sector entities that are members of the institution's consolidation group

(f)(xxi)(1) Loans, facilities or other credit exposures that is required by section 46(2) of BCR to be aggregated with item (f)(xxi)

51. Items (f)(xxi) and (f)(xxi)(1) are applicable only for institution who calculates its CAR on a solo/solo-consolidated basis under a section 3C requirement.

52. Subject to paragraph 53, report in item (f)(xxi) the sum of the applicable amounts of the following:

- (i) the institution's direct holdings of CET1 capital instruments issued by financial sector entities that are members of the institution's consolidation group; and
- (ii) any loans, facilities or other credit exposures provided by the institution to any connected companies of the institution where the connected company is a financial sector entity, except where the institution demonstrates to the satisfaction of the MA that any such loan was made, facility granted or other credit exposure incurred in the ordinary course of the institution's business.

53. For the purposes of paragraph 52(i) above, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;
- (ii) reduce the amount to be deducted under item (f)(xxi) by any amount of goodwill (related to any holdings of shares falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (f)(xxi) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

54. Report separately in item (f)(xxi)(1) the amount of any loans, facilities or other credit exposures described in paragraph 52(ii) above that is included in the amount reported in item (f)(xxi).

(f)(xxii)

Regulatory deductions applied to CET1 capital due to insufficient

Additional Tier 1 capital to cover the required deductions

55. The institution should deduct from its CET1 capital the amount required to be deducted from Additional Tier 1 capital by virtue of section 47 of the BCR that exceeds the Additional Tier 1 capital of the institution.
56. If the institution's Additional Tier 1 capital before deductions **(C)** is less than the sum of deduction items (i)(i) to (i)(vi), then:
- report "0" in Additional Tier 1 capital after deductions **(D)**; and
 - report the sum of items (i)(i) to (i)(vi) minus Additional Tier 1 capital before deductions **(C)** in item (f)(xxii).

CET1 Capital After Deductions **(B)**

57. This is the sum of items (a) to (e) in Column 2 after making the deductions specifically required from CET1 capital (i.e. items (f)(i) to (f)(xxii)).
58. This is also the figure to be reported in item 1.1(i) of Division A of Form MA(BS)3(I).

Category II

Additional Tier 1 capital

(g) Additional Tier 1 capital instruments issued and share premium

59. Report in item (g) the amount of:

- (i) the institution's capital instruments that meet the *Qualifying Criteria to be Met to be Additional Tier 1 Capital* (AT1 Qualifying Criteria) set out in Schedule 4B of the BCR; and
- (ii) the amount of the institution's share premium arising from the issue of capital instruments referred to in subparagraph (i) above.

60. Additional Tier 1 capital instruments issued to third parties by the institution through a special purpose vehicle may be included in the Additional Tier 1 capital of the institution on a consolidated basis as if the institution itself had issued the capital instruments directly to third parties, provided that:

- (i) the special purpose vehicle is consolidated with the institution;
- (ii) the capital instruments meet the AT1 Qualifying Criteria set out in Schedule 4B of the BCR; and
- (iii) the only asset of the special purpose vehicle is its investment in the capital of the institution in a form that meets the AT1 Qualifying Criteria set out in Schedule 4B of the BCR⁷.

(h) Applicable amount of capital instruments issued by the consolidated bank subsidiaries of the institution and held by third parties

61. Where the MA requires under section 3C of the BCR that the CAR of the institution is to be calculated on a ***consolidated basis*** in respect of the institution's bank subsidiaries, report in item (h) the applicable amount of capital instruments issued by the consolidated bank subsidiaries of the institution and held by third parties, which is recognized as Additional Tier 1 capital of the institution on a consolidated basis, and calculated in accordance with sections 2(2) and 4 of Schedule 4D (*Requirements to be Met for Minority Interests and Capital Instruments Issued by Consolidated Bank Subsidiaries and held by Third Parties to be included in Authorized Institution's Capital Base*) of the BCR.

⁷ Assets that relate to the operation of the SPV may be excluded from this assessment if they are de minimis.

62. The maximum amount of Tier 1 capital instruments (i.e. CET1 capital instruments and Additional Tier 1 capital instruments) issued by the bank subsidiary to third parties that can be included in the Tier 1 capital of the institution on a consolidated basis is calculated as:

$$A - (B * C)$$

where:

A gross amount of total qualifying Tier 1 capital instruments of the bank subsidiary issued to third parties

B (If the bank subsidiary is incorporated in Hong Kong)

surplus Tier 1 capital of the bank subsidiary = Tier 1 capital of the bank subsidiary (after taking into account items under section 38(2) and deductions under sections 43 to 47 of the BCR) less the lower of

- i. the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk and sovereign concentration risk of the bank subsidiary, calculated on a solo basis or a solo-consolidated basis, as the case may be, and multiplied by the percentage equal to the sum of—
 - (I) the minimum Tier 1 capital ratio that the bank subsidiary must comply with, on a solo basis or a solo-consolidated basis, as the case may be, under section 3B of the BCR, and if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
 - (II) the buffer level applicable to the bank subsidiary under section 3G of the BCR, or

(Item i. corresponds to the minimum Tier 1 capital requirement of the bank subsidiary plus the buffer level applicable to the bank subsidiary)

- ii. the portion of the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk and sovereign concentration risk of the institution calculated on a consolidated basis, that relates to the bank subsidiary, multiplied by the percentage equal to the sum of—

- (I) the minimum Tier 1 capital ratio that the institution must comply with, on a consolidated basis, under section 3B of the BCR and, if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
- (II) the buffer level applicable to the institution under section 3G of the BCR.

(Item ii. corresponds to the portion, calculated as the consolidated minimum Tier 1 capital requirement plus the buffer level applicable to the institution)

Or

(If the bank subsidiary is not incorporated in Hong Kong)

surplus Tier 1 capital of the bank subsidiary = Tier 1 capital of the bank subsidiary (after taking into account items under section 38(2) and deductions under sections 43 to 47 of the BCR) less –

- iii. the portion of the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk and sovereign concentration risk of the institution calculated on a consolidated basis, that relates to the bank subsidiary, multiplied by the percentage equal to the sum of –
 - (I) the minimum Tier 1 capital ratio that the institution must comply with, on a consolidated basis, under section 3B of the BCR and, if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
 - (II) the buffer level applicable to the institution under section 3G of the BCR.

(Item iii. corresponds to the portion, calculated as the consolidated minimum Tier 1 capital requirement plus the buffer level applicable to the institution)

Note:

An institution may choose to use **6%** (*substitute*

percentage) instead of the specified minimum ratio referred to in items B.i.(I), B.ii.(I) and B.iii.(I) above.

C percentage of Tier 1 capital instruments of the bank subsidiary held by third parties

63. The amount of Tier 1 capital recognized in the Additional Tier 1 capital of an institution on a consolidated basis must exclude the portion that has been recognized in the consolidated CET1 capital under paragraph 13 above.
64. The calculation as shown above must be undertaken for each individual bank subsidiary separately. If the institution has chosen to use the substitute percentage, it must not, without the MA's prior consent, use the specified minimum ratio subsequently. In addition, the institution must use only either the specified minimum ratio or the substitute percentage in respect of all of its bank subsidiaries that are members of its consolidation group.
65. **Annex II-A** is an illustrative example on how to calculate the applicable amount of minority interests and capital instruments issued by consolidated bank subsidiaries and held by third parties to be included in the institution's capital base.
66. If the institution issues capital instrument to third parties through a special purpose vehicle via a consolidated bank subsidiary of the institution and -
 - (i) the special purpose vehicle is consolidated with the bank subsidiary;
 - (ii) the capital instruments meet the AT1 Qualifying Criteria set out in Schedule 4B of the BCR; and
 - (iii) the only asset of the special purpose vehicle is its investment in the capital of the bank subsidiary in a form that meets the AT1 Qualifying Criteria set out in Schedule 4B of the BCR⁸,

the institution may treat the capital instruments as if the bank subsidiary itself had issued the capital instrument directly to the third parties, and may include the capital instruments in determining the applicable amount of the capital instruments to be included in the Additional Tier 1 capital of the institution on a consolidated basis as stipulated in paragraph 61 above.

⁸ Assets that relate to the operation of the SPV may be excluded from this assessment if they are de minimis.

Additional Tier 1 Capital Before Deductions (C)

67. This is the sum of items (g) and (h) in Column 2.

Regulatory deductions from Additional Tier 1 Capital

68. The institution must deduct the following items from its Additional Tier 1 capital in accordance with the provisions set out in Part 3 of the BCR.

With respect to the regulatory deduction of an institution's LAC investments in capital instruments issued by and non-capital LAC liabilities of financial sector entities and capital investments in commercial entities, **Annex II-B** provides an illustration showing the relevant components of different types of LAC investments and loans, facilities or credit exposures that are required to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital under the BCR.

(i)(i)

Investments in own Additional Tier 1 capital instruments

69. Report the amount of any direct, indirect and synthetic holdings by the institution of its own Additional Tier 1 capital instruments, unless already derecognized under applicable accounting standards, calculated in accordance with the provisions of Schedule 4E of the BCR. For this purpose, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;
- (ii) reduce the amount to be deducted under item (i)(i) by any amount of goodwill (related to any holdings of Additional Tier 1 capital instruments falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (i)(i) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of

the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(i)(ii)

Reciprocal cross holdings in Additional Tier 1 capital instruments

70. Report the amount of any direct, indirect and synthetic holdings by the institution of Additional Tier 1 capital instruments issued by financial sector entity where that entity has a reciprocal cross holding with the institution. For this purpose, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;
- (ii) reduce the amount to be deducted under item (i)(ii) by any amount of goodwill (related to any holdings of Additional Tier 1 capital instruments falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (i)(ii) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(i)(iii)

Insignificant LAC investments in Additional Tier 1 capital instruments issued by financial sector entities that are not subject to consolidation under a section 3C requirement and not covered by the 10% threshold

71. Subject to paragraph 72 below, report the applicable amount of the institution's direct, indirect and synthetic holdings of Additional Tier 1 capital instruments issued by financial sector entities, calculated in accordance with Schedule 4F of the BCR, if – (a) the entities are not the subject of consolidation under a section 3C requirement imposed on the

institution; (b) the holdings are insignificant LAC investments; and (c) the holdings do not otherwise fall within items (i)(i) and (i)(ii) above. For this purpose, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;
- (ii) reduce the amount to be deducted under item (i)(iii) by any amount of goodwill (related to any holdings of Additional Tier 1 capital instruments falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (i)(iii) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

72. The applicable amount to be deducted from the institution's Additional Tier 1 capital under paragraph 71 above should be determined by the formula in the first column of the following table:

<u>Applicable amount</u>	<u>Reference to Schedule 4F of the BCR</u>
<u>(For deduction of holdings by an institution that is a “section 2 institution” as defined in section 2 of Schedule 4F to the BCR⁹)</u>	
<i>Excess(10% threshold)(net long) * AT1 percentage</i>	<u>Sections 1, 2, 4</u>
<u>(For deduction of holdings by an institution that is a “section 3 institution” (within the meaning of section 3 of Schedule 4F to the BCR) or treated as such by virtue of section 2(2) of Schedule 4F)</u>	
<i>Excess(10% threshold)(net long) * AT1 percentage</i>	<u>Sections 1, 3, 4</u>

Annex II-D is an illustrative example on how to calculate the applicable amount of insignificant and significant LAC investments to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital.

73. The amount of insignificant LAC investments issued by financial sector entities that do not exceed the 10% threshold referred to in paragraph 72 above, and therefore not deducted from an institution’s Additional Tier 1 capital, is to continue to be risk-weighted in accordance with the applicable risk-weight under one or more of Parts 4, 5, 6 and 8 of the BCR, as the case requires.

(i)(iv) Significant LAC investments in Additional Tier 1 capital instruments issued by financial sector entities that are not subject to consolidation under a section 3C requirement

74. Subject to paragraph 75 below, report the amount of the institution’s direct, indirect and synthetic holdings of Additional Tier 1 capital instruments issued by financial sector entities, calculated in accordance with Schedule 4G of the BCR, if – (a) the entities are not the subject of consolidation under a section 3C requirement imposed on the institution; (b) the holdings are significant LAC investments; and (c) the holdings do not otherwise fall within items (i)(i) and (i)(ii) above. For this purpose, the institution must:
- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate;

⁹ (Viz., a *resolution entity* or *material subsidiary* but exclude any material subsidiary that has obtained the MA’s prior consent to be treated as a “section 3 institution” (within the meaning of section 3 of Schedule 4F)).

- (ii) reduce the amount to be deducted under item (i)(iv) by any amount of goodwill (related to any holdings of Additional Tier 1 capital instruments falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (i)(iv) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

75. All significant LAC investments in capital instruments issued by financial sector entities that are not in the form of CET1 capital instruments must be fully deducted from an authorized institution's Additional Tier 1 capital or Tier 2 capital, as the case requires, by reference to the tier of capital for which the capital instruments would qualify if they were issued by the institution itself.

Annex II-D is an illustrative example on how to calculate the applicable amount of insignificant and significant LAC investments to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital.

(i)(v)

Direct holdings of Additional Tier 1 capital instruments issued by financial sector entities that are members of the institution's consolidation group

76. Item (i)(v) is applicable only for institution who calculates its CAR on a solo/solo-consolidated basis under a section 3C requirement.

77. Report the amount of the institution's direct holdings of Additional Tier 1 capital instruments issued by financial sector entities that are members of the institution's consolidation group. For this purpose, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in

which those entities operate;

- (ii) reduce the amount to be deducted under item (i)(v) by any amount of goodwill (related to any holdings of Additional Tier 1 capital instruments falling within such item) already deducted under section 43(1)(a) of the BCR; and
- (iii) include in the amount to be deducted under item (i)(v) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(i)(vi)

Regulatory deductions applied to Additional Tier 1 capital due to insufficient Tier 2 capital to cover the required deductions

- 78. The institution is required to make from its Tier 2 capital any regulatory deductions by virtue of section 48 of the BCR. Such deductions must be applied to Additional Tier 1 capital in case Tier 2 capital of the institution is not sufficient to cover the required deductions.
- 79. If the institution's Tier 2 capital before deductions (**F**) is less than the sum of deduction items (r)(i) to (r)(viii), then:
 - report "0" in Tier 2 capital after deductions (**G**); and
 - report the sum of items (r)(i) to (r)(viii) minus Tier 2 capital before deductions (**F**) in item (i)(vi).

Additional Tier 1 Capital After Deductions (**D**)

- 80. This is the sum of items (g) and (h) in Column 2 after making the deductions specifically required from Additional Tier 1 capital (i.e. items (i)(i) to (i)(vi)). However, if an institution's Additional Tier 1 capital before deductions (**C**) is less than the sum of deduction items (i)(i) to (i)(vi), then report "0" in Additional Tier 1 capital deductions (**D**) and follows the

instructions set out in paragraph 56.

81. This is also the figure to be reported in item 1.1(ii) of Division A of Form MA(BS)3(I).

Tier 1 Capital (E)

82. This is the sum of CET1 capital after deductions **(B)** and Additional Tier 1 capital after deductions **(D)**.
83. This is also the figure to be reported in item 1.1 of Division A of Form MA(BS)3(I).

Category III

Tier 2 Capital

(j)

Tier 2 capital instruments issued and share premium

84. Report in item (j) the amount of:

- (i) the institution's capital instruments that meet the Tier 2 Qualifying Criteria as specified in Schedule 4C of the BCR; and
- (ii) the amount of the institution's share premium arising from the issue of capital instruments referred to in subparagraph (i) above.

85. Tier 2 capital instruments issued to third parties by the institution through a special purpose vehicle may be included in the Tier 2 capital of the institution on a consolidated basis as if the institution itself had issued the capital instruments to third parties, provided that:

- (i) the special purpose vehicle is consolidated with the institution;
- (ii) the capital instruments meet the qualifying criteria set out in Schedule 4C of the BCR; and
- (iii) the only asset of the special purpose vehicle is its investment in the capital of the institution in a form that meets the Tier 2 Qualifying Criteria set out in Schedule 4C of the BCR¹⁰.

(k)

Applicable amount of capital instruments issued by the consolidated bank subsidiaries of the institution and held by third parties

86. Where the MA requires under section 3C of the BCR that the CAR of the institution is to be calculated on a ***consolidated basis*** in respect of the institution's bank subsidiaries, report in item (k) the applicable amount of capital instruments issued by the consolidated bank subsidiaries of the institution and held by third parties, which is recognized as Tier 2 capital of the institution on a consolidated basis, and calculated in accordance with sections 2(2) and 5 of Schedule 4D (*Requirements to be Met for Minority Interests and Capital Instruments Issued by Consolidated Bank Subsidiaries and held by Third Parties to be included in Authorized Institution's Capital Base*) of the BCR.

¹⁰ Assets that relate to the operation of the SPV may be excluded from the assessment if they are de minimis.

87. The maximum amount of all capital instruments (i.e. CET1 capital instruments, Additional Tier 1 capital instruments and Tier 2 capital instruments) issued by the bank subsidiary to third parties that can be included in the Total capital of the institution on a consolidated basis is calculated as:

$$A - (B * C)$$

where:

A gross amount of total qualifying capital instruments of the bank subsidiary issued to third parties

B (If the bank subsidiary is incorporated in Hong Kong)

surplus Total capital of the subsidiary = Total capital of the subsidiary (after taking into account items under section 38(2) and deductions under sections 43 to 48 of the BCR) less the lower of –

- i. the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk and sovereign concentration risk of the bank subsidiary, calculated on a solo basis or a solo-consolidated basis, as the case may be, and multiplied by the percentage equal to the sum of –

- (I) the minimum Total capital ratio that the bank subsidiary must comply with, on a solo basis or a solo-consolidated basis, as the case may be, under section 3B of the BCR, and if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
- (II) the buffer level applicable to the bank subsidiary under section 3G of the BCR, or

(Item i. corresponds to the minimum Total capital requirement of the bank subsidiary plus the buffer level applicable to the bank subsidiary)

- ii. the portion of the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk and sovereign concentration risk of the institution calculated on a

consolidated basis, that relates to the bank subsidiary, multiplied by the percentage equal to the sum of –

- (I) the minimum Total capital ratio that the institution must comply with on a consolidated basis, under section 3B of the BCR and, if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
- (II) the buffer level applicable to the institution under section 3G of the BCR.

(Item ii. corresponds to the portion, calculated as the consolidated minimum Total capital requirement plus the buffer level applicable to the institution)

Or

(If the bank subsidiary is not incorporated in Hong Kong)

surplus Total capital of the subsidiary = Total capital of the subsidiary (after taking into account items under section 38(2) and deductions under sections 43 to 48 of the BCR) less –

- iii. the portion of the sum of risk-weighted amount for credit risk, market risk, CVA risk, operational risk and sovereign concentration risk of the institution calculated on a consolidated basis, that relates to the bank subsidiary, multiplied by the percentage equal to the sum of –
 - (I) the minimum Total capital ratio that the institution must comply with on a consolidated basis, under section 3B of the BCR and, if applicable, as varied by the MA under section 97F of the Banking Ordinance (*specified minimum ratio*); and
 - (II) the buffer level applicable to the institution under section 3G of the BCR.

(Item iii. corresponds to the portion, calculated as the consolidated minimum Total capital requirement plus the buffer level applicable to the institution)

Note:

An institution may choose to use **8% (*substitute percentage*)** instead of the specified minimum ratio referred to in items B.i.(I), B.ii.(I) and B.iii.(I) above.

C percentage of total capital instruments of the subsidiary held by third parties

88. The amount of Total capital recognized in the Tier 2 capital of an institution on a consolidated basis must exclude the portion that has been recognized in the consolidated Tier 1 capital under paragraphs 13 and 61 above.
89. The calculation as shown above must be undertaken for each individual bank subsidiary separately. If the institution has chosen to use the substitute percentage, it must not, without the MA's prior consent, use the specified minimum ratio subsequently. In addition, the institution must use only either the specified minimum ratio or the substitute percentage in respect of all the bank subsidiaries of the institution that are members of its consolidation group.
90. **Annex II-A** is an illustrative example on how to calculate the applicable amount of minority interests and capital instruments issued by consolidated bank subsidiaries and held by third parties to be included in authorized institution's capital base.
91. If the institution issues Tier 2 capital instrument to third parties through a special purpose vehicle via a consolidated bank subsidiary and -
- (i) the special purpose vehicle is consolidated with the bank subsidiary;
 - (ii) the capital instruments meet the Tier 2 Qualifying Criteria set out in Schedule 4C of the BCR; and
 - (iii) the only asset of the special purpose vehicle is its investment in the capital of the bank subsidiary in a form that meets the Tier 2 Qualifying Criteria set out in Schedule 4C of the BCR¹¹,

the institution may treat the capital instruments as if the bank subsidiary itself had issued the capital instrument directly to third parties, and may include the capital instruments in

¹¹ Assets that relate to the operation of the SPV may be excluded from the assessment if they are de minimis.

determining the applicable amount of the capital instruments to be included in the consolidated Tier 2 capital of the institution as mentioned in paragraph 86 above.

(l) Reserves attributable to fair value gains on revaluation of the institution's holdings of land and buildings¹²

92. Subject to paragraphs 93, 94, 95 and 97, report in this item the institution's reserves and retained earnings that is attributable to fair value gains arising from:

- (i) the revaluation of the institution's holdings of land and buildings except land and buildings mortgaged to the institution to secure a debt;
- (ii) the revaluation of the institution's share of the net asset value of any subsidiary of the institution to the extent that the value has changed as a result of the revaluation of the subsidiary's holdings of land and buildings except any land and buildings mortgaged to the subsidiary to secure a debt; and
- (iii) disposal of land and buildings (whether for the institution's own-use or for investment purposes) referred to in section 38(2)(d) of the BCR.

Provided that:

- (a) the institution has a clearly documented policy on the frequency and method of revaluation of its holdings of land and buildings that is satisfactory to the MA;
- (b) the institution does not depart from that policy except after consultation with the MA;
- (c) subject to sub-paragraph (d) below, any revaluation of the institution's holdings of land and buildings is undertaken by an independent professional valuer;
- (d) in any case where the institution demonstrates to the satisfaction of the MA that, despite all reasonable efforts, it has been unable to obtain the services of an independent professional valuer to undertake the revaluation of all or part, as the case may be, of the institution's holdings of land and buildings, any revaluation of such holdings undertaken by a person who is not an independent professional valuer is

¹² According to sections 29, 30 and 31 of the BCR, the institution is allowed to deduct the portion of reserves not recognized in Tier 2 capital (i.e. the amount of the 55% haircut) from the institution's total risk-weighted amount. Such deductible amount should be reported in item 2.12(ii) of Division A of Form MA(BS)3(I).

endorsed in writing by an independent professional valuer;

- (e) any revaluation of the institution's holdings of land and buildings is approved by the institution's external auditors of the institution and explicitly reported in the institution's audited accounts; and
 - (f) the fair value gains relating to paragraphs 92(i) to (iii) above are recognized in accordance with applicable accounting standards and any such gains not recognized in the financial statements of the institution are excluded.
93. The shares issued by the institution through capitalizing that part of the institution's reserves and retained earnings that is attributable to fair value gains described in paragraph 92 above is allowed to be added back in the institution's Tier 2 capital.
94. The amount of the fair value gains on revaluation of each of paragraphs 92(i) to (iii) above, which may be included in Tier 2 capital, shall not exceed 45% of each of such fair value gains (i.e. applying a haircut of 55% to each of such gains).
95. The institution must not, in calculating its Tier 2 capital, set-off losses in respect of the institution's own use land and buildings where such losses are recognized in the institution's profit or loss against unrealized gains that are reflected directly in the institution's equity through the statement of changes in equity.
96. The institution must deduct from its CET1 capital any cumulative losses of the institution arising from the institution's holdings of land and buildings below the depreciated cost value (whether or not any such land and buildings are held for the institution's own-use or for investment purposes). Such amount, if any, is to be reported in item (f)(xiv) above.
97. For the purposes of item (l) Reserves attributable to fair value gains on revaluation of the institution's holdings of land and buildings, whether the amount should be net or gross of deferred tax liability should be based on the prevailing accounting standards applicable within a given jurisdiction.

(m), (n) & (o) Regulatory reserve for general banking risks and collective provisions^{13 14}

98. For an institution which uses only the STC approach or BSC approach to calculate its credit risk for non-securitization exposures, the institution must–

- (i) report its regulatory reserve for general banking risks in item (m) and collective provisions in item (n); and
- (ii) report the total of items (m) and (n) in item (o) up to an amount not exceeding 1.25% of the institution's aggregate risk-weighted amount for credit risk calculated by using the STC approach or BSC approach and by using any of the SEC-ERBA, SEC-SA and SEC-FBA. However, the risk-weighted amounts of exposures to CCPs, if any, are excluded.

99. For an institution which uses only the IRB approach, or a combination of the STC approach and IRB approach, to calculate its credit risk for non-securitization exposures, the institution must–

- (i) apportion its regulatory reserve for general banking risks and collective provisions between the STC approach, IRB approach, SEC-IRBA, SEC-ERBA, SEC-SA and SEC-FBA in accordance with section 42(2)(a) or (b) of the BCR, as the case may be. However, the risk-weighted amounts of exposures to CCPs, if any, are excluded for the operation of paragraph 99; and
- (ii) after it has carried out the apportionment referred to in sub-paragraph (i) above –
 - (a) report its regulatory reserve for general banking risks apportioned to the STC approach, SEC-ERBA, SEC-SA and SEC-FBA (relevant approaches) in item (m) and its collective provisions apportioned to the relevant approaches in item (n);
 - (b) report the total of items (m) and (n) in item (o) up to an amount not exceeding 1.25% of its

¹³ According to sections 29, 30 and 31 of the BCR, the institution is allowed to deduct from its total risk-weighted amount the portion of its total regulatory reserve for general banking risks and collective provisions apportioned to the STC approach, BSC approach, SEC-ERBA, SEC-SA or SEC-FBA which is not included in Tier 2 capital. Such deductible amount should be reported in item 2.12(i) of Division A of Form MA(BS)3(I).

¹⁴ Please refer to the HKMA's Regulatory Treatment of Expected Loss Provisions under Hong Kong Financial Reporting Standard 9 in Annex II-C.

aggregate risk-weighted amount for credit risk calculated by using the relevant approaches; and

- (c) comply with the instructions in paragraphs 100 and 101 below in respect of that portion of its regulatory reserve for general banking risks and collective provisions apportioned to the IRB approach and SEC-IRBA.

(p) Surplus provisions (for exposures calculated by using IRB approach)

100. For the institution that adopts the IRB approach for credit risk, if its total EL amount is less than its total eligible provisions, the institution may include the amount of the excess of the total eligible provisions over the total EL amount (i.e. the surplus provisions) in its Tier 2 capital up to 0.6% of its risk-weighted amount for credit risk calculated by using the IRB approach (that is to say, the credit RWA should exclude risk-weighted amounts for exposures to CCPs, if any). The amount to be reported in item (p) of Part II should be consistent with the figure reported in item 9 of Division F of Form MA(BS)3(IIIc).

(q) Regulatory reserve for general banking risks and collective provisions¹⁵ apportioned to SEC-IRBA

101. An institution falling within paragraph 99 above must report in item (q) that portion of its total regulatory reserve for general banking risks and collective provisions that is apportioned to the SEC-IRBA. The amount reported must not exceed 0.6% of its risk-weighted amount for credit risk calculated by using the SEC-IRBA.

Tier 2 Capital Before Deductions (F)

102. This is the sum of items (j), (k), (l), (o), (p) and (q) in Column 2.

Regulatory deductions from Tier 2 Capital

103. The institution must deduct from its Tier 2 capital in accordance with the provisions set out in Part 3 of the BCR.

With respect to the regulatory deduction of an institution's LAC investments in capital instruments issued by and non-

¹⁵ Please refer to the HKMA's Regulatory Treatment of Expected Loss Provisions under Hong Kong Financial Reporting Standard 9 in Annex II-C.

capital LAC liabilities of financial sector entities and capital investments in commercial entities, **Annex II-B** provides an illustration showing the relevant components of different types of LAC investments and loans, facilities or credit exposures that are required to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital under the BCR.

(r)(i)

Investments in own Tier 2 capital instruments

104. Report the amount of any direct, indirect and synthetic holdings by the institution of its own Tier 2 capital instruments, unless already derecognized under applicable accounting standards, calculated in accordance with the requirements specified in Schedule 4E of the BCR. For this purpose, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate; and
- (ii) include in the amount to be deducted under item (r)(i) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(r)(ii)

Reciprocal cross holdings in Tier 2 capital instruments issued by and non-capital LAC liabilities of financial sector entities

105. Report the amount of any direct, indirect and synthetic holdings by the institution of Tier 2 capital instruments issued by and non-capital LAC liabilities of financial sector entity where that entity has a reciprocal cross holding with the institution. For this purpose, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate; and

- (ii) include in the amount to be deducted under item (r)(ii) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(r)(iii) Insignificant LAC investments in Tier 2 capital instruments issued by and non-capital LAC liabilities of financial sector entities that are not subject to consolidation under a section 3C requirement and not covered by either the 5% or the 10% threshold

106. Subject to paragraph 107 below, report the applicable amount of the institution's direct, indirect and synthetic holdings of Tier 2 capital instruments issued by and non-capital LAC liabilities of financial sector entities, calculated in accordance with Schedule 4F of the BCR, if – (a) the entities are not the subject of consolidation under a section 3C requirement imposed on the institution (or not within the same banking group as the institution in the case of holdings of non-capital LAC liabilities); (b) the holdings are insignificant LAC investments; and (c) the holdings do not otherwise fall within items (r)(i) and (r)(ii) above. For this purpose, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate; and
- (ii) include in the amount to be deducted under item (r)(iii) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the

institution, it may treat the uncompleted transaction as not constituting a potential future holding.

107. The applicable amount to be deducted from the institution's Tier 2 capital under paragraph 106 above should be determined by the formula in the first column of the following table:

<u>Applicable amount</u>	<u>Reference to Schedule 4F of the BCR</u>
<u>(For deduction of holdings by an institution that is a "section 2 institution" as defined in section 2 of Schedule 4F to the BCR¹⁶)</u>	
<i>[Excess(10% threshold)(net long) * T2 percentage] + Excess(5% threshold)(gross long)</i>	<u>Sections 1, 2, 4</u>
<u>(For deduction of holdings by an institution that is a "section 3 institution" (within the meaning of section 3 of Schedule 4F to the BCR) or treated as such by virtue of section 2(2) of Schedule 4F)</u>	
<i>Excess(10% threshold)(net long) * T2 percentage + Excess(5% threshold)(gross long)</i>	<u>Sections 1, 3, 4</u>

Annex II-D is an illustrative example on how to calculate the applicable amount of insignificant and significant LAC investments to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital.

108. The amount of insignificant LAC investments issued by financial sector entities that do not exceed the 10% threshold or the 5% threshold referred to in paragraph 107 above and therefore not deducted from an institution's Tier 2 capital, is continue to be risk-weighted in accordance with the applicable risk weight under one or more of Parts 4, 5, 6 and 8 of the BCR, as the case requires.

(r)(iv)

Insignificant LAC investments in non-capital LAC liabilities of financial sector entities previously designated for the 5% threshold but no longer able to meet the conditions set out in section 2(3)(a) of Schedule 4F to BCR

109. Item (r)(iv) is applicable only for a "section 2 institution". Report the amount of any holdings in the institution's investments in non-capital LAC liabilities which have previously been designated as gross long deduction position

¹⁶ (Viz., a ***resolution entity*** or ***material subsidiary*** but exclude any material subsidiary that has obtained the MA's prior consent to be treated as a "section 3 institution" (within the meaning of section 3 of Schedule 4F)).

but ceased to be treated as so designated when either or both of the conditions set out in section 2(3)(a) of Schedule 4F to the BCR is or are no longer met in respect of the holdings (i.e. “*Inv(FmDsg NCLAC)*”).

110. For avoidance of doubt, the holdings in the institution’s investments in non-capital LAC liabilities which have been designated under section 2(3)(a) of Schedule 4F to the BCR must not subsequently be included within the 10% threshold under paragraph 107.

(r)(v)

Significant LAC investments in Tier 2 capital instruments issued by financial sector entities that are not subject to consolidation under a section 3C requirement

111. Subject to paragraph 112 below, report the amount of the institution’s direct, indirect and synthetic holdings of Tier 2 capital instruments issued by financial sector entities, calculated in accordance with Schedule 4G of the BCR, if – (a) the entities are not the subject of consolidation under a section 3C requirement imposed on the institution; (b) the holdings are significant LAC investments; and (c) the holdings do not otherwise fall within items (r)(i) and (r)(ii) above. For this purpose, the institution must:
- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate; and
 - (ii) include in the amount to be deducted under item (r)(v) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.
112. All significant LAC investments in capital instruments issued by financial sector entities that are not in the form of CET1 capital instruments must be fully deducted from an institution’s Additional Tier 1 capital and Tier 2 capital, as the case requires, by reference to the tier of capital for which the

capital instruments would qualify if they were issued by the institution itself.

Annex II-D is an illustrative example on how to calculate the applicable amount of insignificant and significant LAC investments to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital.

(r)(vi)

Significant LAC investments in non-capital LAC liabilities of financial sector entities that are not subject to consolidation under a section 3C requirement

113. Report the amount of the institution's direct, indirect and synthetic holdings of non-capital LAC liabilities of financial sector entities, calculated in accordance with Schedule 4G of the BCR, if – (a) the entities are neither the subject of consolidation under a section 3C requirement imposed on the institution nor within the same banking group as the institution; (b) the holdings are significant LAC investments; and (c) the holdings do not otherwise fall within item (r)(ii) above.
114. For this purpose, the institution must include in the amount to be deducted under item (r)(vi) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(r)(vii)

Direct holdings of Tier 2 capital instruments issued by financial sector entities that are members of the institution's consolidation group

115. Item (r)(vii) is applicable only for institution who calculates its CAR on a solo/solo-consolidated basis under a section 3C requirement.
116. Report the amount of the institution's direct holdings of Tier 2 capital instruments issued by financial sector entities that are members of the institution's consolidation group. For this purpose, the institution must:

- (i) exclude holdings of capital instruments issued by financial sector entities that are not included within regulatory capital in the relevant financial sectors in which those entities operate; and
- (ii) include in the amount to be deducted under item (r)(vii) potential future holdings that the institution could be contractually obliged to purchase. In this connection, the HKMA will generally follow the applicable accounting treatment. In case there are areas where the regulatory treatment is different from the accounting treatment, the HKMA will consider each scenario on a case by case basis. The general principle is that if a transaction is subject to conditions precedent which will lead to the institution holding a capital position upon completion of the transaction where the fulfilment of any of the outstanding conditions is beyond the control of the institution, it may treat the uncompleted transaction as not constituting a potential future holding.

(r)(viii)

Regulatory deductions applied to Tier 2 capital to cover the required deductions falling within section 48(1)(g) of BCR

- 117. For institution that maintains any ***non-capital LAC debt resources***, report the amount by which the total amount of the institution's holdings of non-capital LAC liabilities falling within section 48A of the BCR exceeds the institution's non-capital LAC debt resources. Those holdings of non-capital LAC liabilities that are not deducted from the institution's Tier 2 capital is to continue to be risk-weighted in accordance with the applicable risk-weights under one or more of Parts 4, 5, 6 and 8, as the case requires.
- 118. For institution that does not maintain any non-capital LAC debt resources, report the total amount of the institution's holdings of non-capital LAC debt liabilities falling within section 48A of the BCR.

Tier 2 Capital After Deductions (G)

- 119. This is the sum of items (j), (k), (l), (o) (p) and (q) in Column 2 after making the deductions specifically required from Tier 2 capital (i.e. items (r)(i) to (r)(viii)).
- 120. If the institution's Tier 2 capital before deductions (F) is less than the sum of deduction items (r)(i) to (r)(viii), then:
 - report "0" in Tier 2 capital after deductions (G); and

- report the sum of items (r)(i) to (r)(viii) minus Tier 2 capital before deductions **(F)** in item (i)(vi).

121. This is also the figure to be reported in item 1.2 of Division A of Form MA(BS)3(I).

Capital Base

Capital Base **(H)**

122. This is the aggregate of Tier 1 capital after deductions **(E)** and Tier 2 capital after deductions **(G)**.

123. This is also the figure to be reported in item 1.3 of Division A of Form MA(BS)3(I).

Hong Kong Monetary Authority
March 2025

Illustrative example to calculate the applicable amount of minority interests / Additional Tier 1 and Tier 2 capital instruments issued by consolidated bank subsidiaries and held by third parties to be recognized in CET1 capital, Additional Tier 1 capital and Tier 2 capital of an authorized institution

Suppose a bank subsidiary (Bank S) issued ordinary shares, Additional Tier 1 and Tier 2 capital instruments of \$100, \$40 and \$20 respectively, and third parties own 30% of the ordinary share, 50% of Additional Tier 1 capital instruments and 75% of Tier 2 capital instruments. If Bank S has \$1,000 of total risk-weighted assets, its minimum CET1, Tier 1 and total capital requirements (including applicable buffer level¹) are assumed to be \$90, \$105 and \$125 (i.e. corresponding to a 9% CET1 capital ratio, 10.5% Tier 1 capital ratio and a 12.5% Total capital ratio)² respectively. Therefore, the applicable amount of minority interests is calculated as follows:

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Capital issued by Bank S (gross of regulatory deductions)	Capital owned by third parties	Amount of minority interests = ((a) * (b))	Minimum capital ratio (incl. applicable buffer level)	Minimum capital requirement (incl. applicable buffer level) = (RWA * (d))	Surplus capital of subsidiary (net of deductions, if any) = ((a) – (e))	Surplus capital of subsidiary attributable to third parties = ((f) * (b))	Minority interests recognized = ((c) – (g))
CET1	\$100	30%	\$30	9%	\$90	\$10	\$3	\$27
AT1	\$40	50%	\$20					\$10.5
Tier 1	\$140	35.7%	\$50	10.5%	\$105	\$35	\$12.5	\$37.5
Tier 2	\$20	75%	\$15					\$13.3
Total capital	\$160	40.6%	\$65	12.5%	\$125	\$35	\$14.2	\$50.8
		C	A			B		

¹ Assuming buffer level applicable under section 3G of the BCR is 4.5%, consisting of 2.5% capital conservation buffer, 1% countercyclical capital buffer and 1% higher loss absorbency requirement.

² The three percentage figures here are for illustrative purposes only. The exact figures to be used in reality will depend on whether Bank S is locally incorporated in Hong Kong or outside Hong Kong according to Schedule 4D of the BCR.

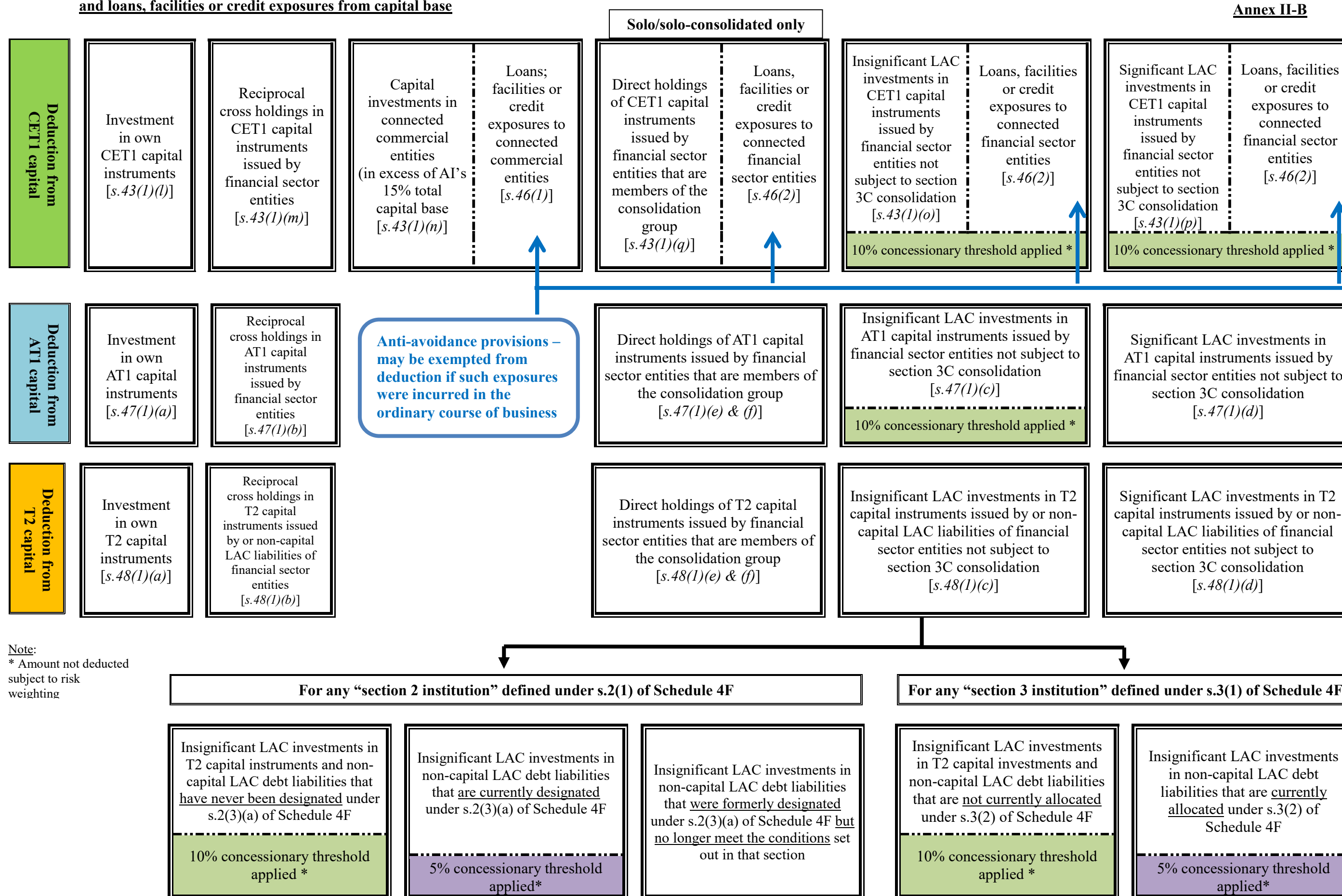
In this example, by using the formula $[A - (B * C)]$ as stipulated in paragraph 13 of the completion instructions, the amount of minority interest that can be recognized in the institution's consolidated CET1 capital is \$27 (i.e. $\$30 - (\$10 * 30\%)$).

Similarly, following the same formula above, the amount of Tier 1 capital instruments (including both CET1 and AT1 capital instruments) held by third parties that can be recognized in the institution's consolidated Tier 1 capital equals to \$37.5 (i.e. $\$50 - (\$35 * 35.7\%)$). Since \$27 has been recognized in the consolidated CET1 capital of the institution, only \$10.5 (i.e. $\$37.5 - \$27$) of such Tier 1 capital instruments can be included in its consolidated Additional Tier 1 capital.

The calculation of the applicable amount of Tier 2 capital instruments held by third parties to be included in an institution's Tier 2 follows the same methodology as shown above.

Deduction of investments in capital and non-capital LAC liabilities and loans, facilities or credit exposures from capital base

Annex II-B



**Regulatory Treatment of Expected Loss Provisions under
Hong Kong Financial Reporting Standard 9 (HKFRS 9)**

Basel Committee on Banking Supervision (BCBS) interim standard

1. The BCBS regulatory capital standard requires banks to categorize accounting provisions made into general provisions (GP) and specific provisions (SP) for the purpose of capital treatment. Authorized institutions (AIs) using the standardised approach and basic approach for credit risk can include GP as Tier 2 capital up to 1.25% of credit RWAs while SP are netted off from risk-weighted exposures. For AIs using the IRB approach, the total eligible provisions (EP) (which include all accounting provisions) are compared with the regulatory measure of expected loss (EL) calculated based on predetermined parameters. Any shortfall of EP vis-a-vis EL is deducted from CET1 capital, and any excess of EP over EL is counted as Tier 2 capital up to 0.6% of credit RWAs.
2. As an interim measure for capital adequacy purposes pending the design and development of a longer-term solution, the BCBS issued on 29 March 2017 an interim standard on the regulatory treatment of accounting provisions³, under which the current requirement to categorise banks' provisions into GP and SP and their respective treatment for regulatory capital calculation (as mentioned in paragraph 1 above) will remain unchanged when the "expected loss" provisioning model under International Financial Reporting Standard 9 (IFRS 9) comes into effect from 1 January 2018.

Capital treatment of expected loss provisions under the Banking (Capital) Rules (BCR)

3. To align with the expected loss provisions under the new HKFRS 9 (IFRS 9 equivalent), existing definitions for "collective provisions" (i.e. essentially GP) and "specific provisions" set out in section 2(1) of the BCR have been updated. The HKFRS 9 categories financial assets into three stages in terms of credit impairment. For capital calculation, impairment provisions pertaining to exposures classified under the first two stages (i.e. Stage 1 and Stage 2) will be treated as GP, and those pertaining to exposures classified under Stage 3 as SP. With respect to provisions made for purchased or originated credit-impaired financial assets under which any changes in lifetime expected credit losses will be recognized in profit or loss account as an impairment gain or loss, the HKMA regards that such provisions to be similar in nature to SP and hence will be treated as such for capital adequacy purposes.

Determination of Regulatory Reserve (RR) under HKFRS 9

4. The following two-step approach should be adopted for determining whether any RR is required to be maintained by an AI on top of the provisions made by it under the new accounting standard (please refer to the HKMA's consultation paper "Regulatory Treatment of Provisions under HKFRS 9" (CP 17.02)⁴ for details):

³ <http://www.bis.org/bcbs/publ/d401.pdf> Following the issuance of the interim standard, the BCBS continues to work on the development of a final standard to reflect expected loss provisioning within the regulatory capital framework.

⁴ The consultation paper is available at http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/basel-3/CP_17_02_HKFRS9.pdf

- (a) **Step 1** – calculating a benchmark regulatory provision for unidentified expected loss (benchmark) for each AI as the product of (i) a predetermined institution-specific “target rate” of the AI⁵ and (ii) the AI’s total loans and advances (to non-banks)⁶;
- (b) **Step 2** – comparing the benchmark with the relevant portion of HKFRS 9 provisions made for the AI’s total loans and advances to non-banks categorised into Stage 1 and Stage 2 under HKFRS 9 which, by definition, are not credit-impaired (i.e. they are provisions for unidentified expected loss); and
 - (i) where the benchmark is greater than the relevant portion of HKFRS 9 provisions, the “shortfall” will continue to be earmarked from retained earnings and maintained as RR;
 - (ii) where, on the other hand, the benchmark is equal to or smaller than relevant portion of HKFRS 9 provisions so that there is no “shortfall” or an “excess” of accounting provisions, no RR will be required.

⁵ Please also refer to any circulars issued by the HKMA for the latest announcement in relation to the RR calculation mechanism including the one issued on 8 April 2020 (which is available at <https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2020/20200408e1.pdf>, <https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2020/20200408e1a1.pdf>).

⁶ Exposures arising from IPO financing which fall within sections 64A, 113A or 202B of the BCR are excluded from the base in calculating regulatory reserve.

Annex II-D

Illustrative example to calculate the applicable amount of investments in capital instruments issued by and non-capital LAC debt liabilities of financial sector entities to be deducted from CET1 capital, Additional Tier 1 capital and Tier 2 capital

Suppose Bank A (a “section 2 institution” under section 2(1) of Schedule 4F to the BCR) holds the following capital instruments issued by and non-capital LAC liabilities of financial sector entities that fall within Schedule 4F and 4G and suppose further that Bank A has CET1 capital, Additional Tier 1 (AT1) capital and Tier 2 (T2) capital of \$7,000, \$2,000 and \$1,500 respectively as at reporting date.

Investments	CET1 capital instruments	AT1 capital instruments	T2 capital instruments	Non-capital LAC liabilities (NCLAC)			Total
Insignificant LAC investments	\$650 (a)	\$400 (b)	\$300 (c)	Never designated under s.2(3)(a) of Schedule 4F “ <i>Inv(NvDsg NCLAC)</i> ”	Currently designated under s. 2(3)(a) of Schedule 4F “ <i>Inv(CurDsg NCLAC)</i> ”	Formerly designated under s.2(3)(a) of Schedule 4F “ <i>Inv(FmDsg NCLAC)</i> ”	\$2,050
				\$200 (d)	\$350 (e)	\$150	
Significant LAC investments	\$1,200	\$800	\$600	\$250			\$2,850

Part I (insignificant LAC investments)

The applicable amount of insignificant LAC investments to be deducted from the institution’s capital base (i.e. “*Excess(10% threshold)(net long)*”, “*Excess(5% threshold)(gross long)*” and “*Inv(FmDsg NCLAC)*”) should be determined according to sections 1, 2 and 4 of Schedule 4F to the BCR.⁷ Such amounts should be derived based on the following illustration.

⁷ For a “section 3 institution” under section 3(1) of Schedule 4F to the BCR, such applicable amount should be determined according to sections 1, 3 and 4 of the same Schedule.

Steps		Calculations	
1.	Determine the 10% and 5% concessionary threshold assuming the amount of regulatory deductions to be \$1,000	CET1 capital before deductions	\$7,000
		- Less: deductions CET1 capital after deductions⁸	<u>(\$1,000)</u> \$6,000
		<u>5% concessionary threshold:</u> = \$6,000 * 5% = \$300 (f)	<u>10% concessionary threshold:</u> = \$6,000 * 10% = \$600 (g)
2.	Determine the amount of investments in NCLAC that are currently designated under section 2(3)(a) of Schedule 4F but are in excess of the 5% threshold (i.e. “ Excess(5% threshold)(gross long) ”)	= ((e) – (f)) = \$350 - \$300 = \$50	Not applicable
3.	Determine the total amount of investments in capital instruments and NCLAC on a net long basis that will be covered by or exceed the 10% threshold	Not applicable	= (a) + (b) + (c) + (d) = \$650 + \$400 + \$300 + \$200 = \$1,550 (h)
4.	Determine the amount of investments in capital instruments and NCLAC that are in excess of the 10% threshold (i.e. “ Excess(10% threshold)(net long) ”)	Not applicable	= ((h) – (g)) = \$1,550 - \$600 = \$950
4a.	Apportion the amount of investments in CET1 capital instruments to be deducted from CET1 capital	Not applicable	= \$950 * (\$650 / \$1,550) = \$398
4b.	Apportion the amount of investments in AT1 capital instruments to be deducted from AT1 capital	Not applicable	= \$950 * (\$400 / \$1,550) = \$245

⁸ The CET1 capital after deductions for the calculation of the 10% and 5% threshold must take into account any deduction applied to CET1 capital due to insufficient AT1 capital and T2 capital, if any.

4c. Apportion the amount of (i) investments in T2 capital instruments and (ii) investments in NCLAC that are neither currently designated under section 2(3)(a) of Schedule 4F nor were formerly designated (i.e. “ <i>Inv(NvDsg NCLAC)</i> ”) to be deducted from T2 capital	Not applicable	$= \$950 * ((\$300 + \$200) / \$1,550)$ $= \$307$
---	----------------	--

Consequently, Bank A’s holding of insignificant LAC investments in excess of 10% concessionary threshold is **\$950**, being \$1,550 minus \$600. The pro-rata calculation of respective amounts subject to (i) deduction from each tier of capital, and (ii) risk-weighting in accordance with the applicable risk-weights under one or more of Parts 4, 5, 6 and 8 of the BCR, as the case requires, will be as follows –

Table 1

(A)			
	Amount subject to deduction	Amount subject to risk-weighting	Total
from CET1	$= \$950 * (\$650 / \$1,550)$ = \$398	$= \$600 * (\$650 / \$1,550)$ = \$252	\$650
from AT1	$= \$950 * (\$400 / \$1,550)$ = \$245	$= \$600 * (\$400 / \$1,550)$ = \$155	\$400
from T2	$= \$950 * ((\$300 + \$200) / \$1,550)$ = \$307	$= \$600 * ((\$300 + \$200) / \$1,550)$ = \$193	\$500
	\$950	\$600	\$1,550

Hence, the balance of CET1 capital, AT1 capital and T2 capital of Bank A after the deduction of insignificant LAC investments in Part I will be

Table 2

	CET1 capital	AT1 capital	T2 capital
Capital balance before regulatory deductions	7,000	2,000	1,500
<i>Less: deductions</i>	<i>(1,000)</i>	<i>0</i>	<i>0</i>
<i>Less: “Excess(5% threshold)(gross long)”</i>	<i>0</i>	<i>0</i>	<i>(50)</i>
<i>Less: “Excess(10% threshold)(net long)”⁹</i>	<i>(398)</i>	<i>(245)</i>	<i>(307)</i>
<i>Less: “Inv(FmDsg) NCLAC” to be deducted in full</i>	<i>0</i>	<i>0</i>	<i>(150)</i>
Balance brought forward to Part II	5,602	1,755	993

Part II (significant LAC investments)

According to sections 1(2), (3) and (3A) of Schedule 4G to the BCR, with respect to significant LAC investments, the concessionary threshold only applies to the institution’s capital investments in the form of CET1 capital instruments. Any holdings of AT1 capital instruments and T2 capital instruments issued by and non-capital LAC liabilities of financial sector entities must be fully deducted from the institution’s AT1 capital or T2 capital.

⁹ See column (A) of Table 1.

Table 3

	<u>CET1 capital</u>	<u>AT1 capital</u>	<u>T2 capital</u>	<u>Remarks</u>
Balance brought down from Part I	5,602	1,755	993	See last row of Table 2 on page 9
<i>Less: full deduction of significant LAC investments in Tier 2 capital instruments and NCLAC</i>			<i>(850)</i>	The sum of significant LAC investments in \$600 Tier 2 capital instruments and \$250 NCLAC
<i>Less: full deduction of significant LAC investments in AT1 capital instruments</i>		<i>(800)</i>		
<i>Less: significant LAC investments in CET1 capital instruments subject to deduction</i>	<i>(640)</i>			The 10% concessionary threshold for significant LAC investments in CET1 capital instruments is <u>\$560</u> , being $(\$5,602 * 10\%)$. Therefore, (i) amount of significant LAC investments in CET1 capital instruments exceeding 10% concessionary threshold and subject to deduction is $(\$1,200 - \$560) = \$640$ (ii) amount of significant LAC investments in CET1 capital instruments subject to 250% risk-weight is \$560.
Capital after deduction of significant LAC investments	4,962	955	143	

Completion Instructions

Return of Capital Adequacy Ratio Part IIIa - Risk-weighted Amount for Credit Risk Basic Approach Form MA(BS)3(IIIa)

Introduction

1. Form MA(BS)3(IIIa) of Part III should be completed by each authorized institution (AI) incorporated in Hong Kong using the ***basic approach (BSC approach)*** to calculate ***credit risk*** under Part 5 of the Banking (Capital) Rules (BCR).
2. This Form covers the following exposures of a reporting AI:
 - (a) all on-balance sheet exposures and off-balance sheet exposures booked in its ***banking book***;
 - (b) all ***default risk exposures*** to counterparties under ***securities financing transactions (SFTs)*** and ***derivative contracts*** booked in its ***trading book***;
 - (c) all credit exposures to counterparties in respect of transactions (other than ***repo-style transactions***) in securities, foreign exchange or ***commodities*** booked in its trading book that remain outstanding after the settlement dates in respect of the transactions;
 - (d) all credit exposures to counterparties in respect of ***unsegregated collateral*** posted by the AI and held by the counterparties for transactions or contracts booked in AI's trading book; and
 - (e) if applicable, the AI's market risk positions that are exempted from section 17 under section 22 of the BCR, except for its total net open position in foreign exchange exposures as derived in accordance with section 296 of the BCR.
3. This Form does not cover the following exposures:
 - (a) portions of exposures (which may be all of the exposures) that are required to be deducted from any of the AI's ***CET1 capital, Additional Tier 1 capital*** and ***Tier 2 capital*** under Division 4 of Part 3 of the BCR (which should be reported in Form MA(BS)3(II));
 - (b) ***securitization exposures*** (which should be reported in Form MA(BS)3(IIIId));
 - (c) the ***underlying exposures of eligible traditional securitization transactions*** if the AI opts to apply the treatment under section 230(1) of the BCR to the underlying exposures;
 - (d) ***default fund contributions*** made to ***qualifying CCPs*** and ***non-qualifying CCPs*** (which should be reported in Form MA(BS)3(IIIe));

- (e) default risk exposures to qualifying CCPs (which should be reported in Form MA(BS)3(IIIe)); and
 - (f) exposures that are risk-weighted as if they were default risk exposures to qualifying CCPs under Division 4 of Part 6A (which should be reported in Form MA(BS)3(IIIe)).
4. This Form and these completion instructions should be read in conjunction with the BCR and the relevant supervisory policy/guidance related to the capital adequacy framework.

Section A: Definitions and Clarification

5. In these instructions—
- (a) “gross sum of the stated notional amounts” refers to the sum of the stated notional amounts of all relevant contracts, without the stated notional amounts of contracts with positive replacement costs being reduced by the stated notional amounts of contracts with negative or zero replacement costs, regardless of whether the contracts are subject to *recognized netting*.
 - (b) “recognized CRM” refers to *recognized collateral*, recognized netting, *recognized guarantees* and *recognized credit derivative contracts*. To avoid doubt, guarantees issued by other offices of the reporting AI are not regarded as *recognized credit risk mitigation*. Debt securities which are *re-securitization exposures* (whether rated or not) cannot be recognized as collateral (see section 125(2) of the BCR).
 - (c) “stated notional amount” means the nominal *notional amount* of a derivative contract. It should not be confused with any effective notional amount or adjusted notional calculated for the derivative contract under Part 6A of the BCR.
 - (d) “Tier 1 country” has the meaning given by the Banking Ordinance, that is, Hong Kong and any country or place other than Hong Kong which—
 - (i) is a member of the Organization for Economic Co-operation and Development (OECD); or
 - (ii) has concluded special lending arrangements with the International Monetary Fund associated with the International Monetary Fund’s General Arrangements to Borrow,but excludes any such country or place which—
 - (iii) has rescheduled its external sovereign debt, whether to central government or non-central government creditors, within the previous five years; or
 - (iv) is specified by the Monetary Authority (MA) by notice published in the Gazette as being a country or place that is not to be regarded as a Tier 1 country for the purposes of this definition.

Currently, OECD members comprise¹:

Australia	France	Lithuania	Sweden
Austria	Germany	Luxembourg	Switzerland
Belgium	Greece	Mexico	Türkiye
Canada	Hungary	Netherlands	United Kingdom
Chile	Iceland	New Zealand	United States
Colombia	Ireland	Norway	
Costa Rica	Israel	Poland	
Czechia	Italy	Portugal	
Denmark	Japan	Slovak Republic	
Estonia	Korea	Slovenia	
Finland	Latvia	Spain	

6. AIs and ***banks*** include their head offices and branches **outside Hong Kong**. For example, a placement with a ***Tier 2 country*** incorporated AI or its branch **outside Hong Kong** should be classified as an exposure to an AI regardless of the **jurisdiction of its** incorporation or location of its branch. A placement with a Tier 1 country incorporated bank's branch, regardless of its location, should be classified as an exposure to a bank incorporated in Tier 1 country.
7. Double counting of exposures arising from the same contract or transaction should be avoided. For example, only the undrawn portion of a loan commitment should be reported as an off-balance sheet exposure while the actual amount which has been lent out should be reported as an on-balance sheet exposure. ***Trade-related contingencies***, such as trust receipts and shipping guarantees, which have already been reported as letters of credit issued or loans against import bills etc. should not be counted again as off-balance sheet exposures.
8. In certain cases, exposures to counterparties arising from derivative contracts entered into by the reporting AI with those counterparties may already be reflected, in part, on the reporting AI's balance sheet. For example, the AI may have recorded the ***fair value*** of a derivative contract on its balance sheet. To avoid double counting, such amount should be excluded from on-balance sheet exposures and treated as off-balance sheet exposures for the purposes of this Form.
9. Accruals on an exposure should be classified and risk-weighted in the same way as the exposure. Accruals which cannot be so classified should, with the ***prior consent*** of the MA, be included in **Class XII** (Other Exposures).

¹ The list is provided for reference only and may not be up-to-date. AIs must visit the website of the OECD (<https://www.oecd.org>) regularly to verify whether a sovereign to which the AIs have exposures is an OECD member.

10. For **specified SFTs** booked in the reporting AI's banking book—
- (a) if the assets underlying the SFTs are **non-securitization exposures**, the AI's credit exposures to the assets underlying the SFTs should be reported in **Division A** of this Form (see also **section 117C(2)** of the BCR);
 - (b) if the assets underlying the SFTs are securitization exposures, the AI's credit exposures to the assets underlying the SFTs should be risk-weighted in accordance with Part 7 of the BCR and reported in Form MA(BS)3(IIIId) (see also **section 117C(3)** of the BCR).
11. For **specified SFTs** booked in the reporting AI's trading book, the AI's exposures to the assets underlying the SFTs are market risk exposures. Hence, the AI only needs to calculate the **risk-weighted amounts** (RWAs) of its market risk exposures to the assets in accordance with Part 8 of the BCR (see **section 117C(4)** of the BCR) and reports the exposures in **the corresponding Return Form for market risk**. The AI is not required to calculate any RWA for the credit risk of the assets. However, if the AI is granted an exemption under section 22 of the BCR, the AI should comply with **section 117C(2)** instead of **section 117C(4) of the BCR** in calculating the RWAs of its exposures to the assets, and report the exposures in this Form instead.
12. An **originating institution** of a **non-eligible securitization transaction** must report the RWA of the underlying exposures of the transaction in this Form as if the exposures were not securitized. If the credit risk mitigation (CRM) afforded to the underlying exposures of an **eligible synthetic securitization transaction** is **not** in the form of **tranching credit protection**, the underlying exposures must be reported in this Form in the same manner as a non-eligible securitization transaction except that the CRM for transferring the credit risk of the underlying exposures to the other parties to the transaction can be taken into account in the RWA calculation and therefore should also be included in the reporting. However, if the CRM is in the form of tranching credit protection, both the underlying exposures and the CRM effect must be reported in Form MA(BS)3(IIIId) (please see paragraph 15(b) of the completion instructions for Form MA(BS)3(IIIId)). For cases which are not specified in these instructions or in any other supervisory guidance relevant to **securitization transactions**, reporting AIs should consult the HKMA on the reporting arrangements.

Section B: Reporting arrangements for Division A of Part IIIa

B.1 Exposure Classification

13. **Division A** of this Form is organized according to the following **standard exposure classes** into which on-balance sheet and off-balance sheet exposures should be classified under the BSC approach:

Class I	Sovereign Exposures
Class II	Public Sector Entity (PSE) Exposures
Class III	Multilateral Development Bank (MDB) Exposures
Class IV	Unspecified Multilateral Body Exposures
Class V	Bank Exposures
Class VI	Eligible Covered Bond Exposures

Class VII	IPO Financing
Class VIII	Cash and Gold
Class IX	Exposures to Items in the Process of Clearing or Settlement
Class XA	Regulatory Residential Real Estate Exposures
Class XB	Other Real Estate Exposures
Class XIA	Equity Exposures
Class XIB	Significant Capital Investments in Commercial Entities
Class XIC	Insignificant and Significant LAC Investments
Class XID	Subordinated Debts
Class XII	Other Exposures
Class XIII	Collective Investment Scheme Exposures (CIS exposures)

14. The exposure classes are mutually exclusive and therefore each exposure should be reported under only one of them. However, it should be noted that a single transaction may give rise to more than one exposure. For example, a derivative contract booked in the banking book has an exposure to the counterparty to the derivative contract and may also have a credit exposure to the asset underlying the derivative contract.

15. Classification of **credit-linked notes** (CLNs) held

- (a) A single-name CLN held by the reporting AI should be reported in Division A under—
 - (i) the exposure class applicable to the issuer of the CLN if the CLN is allocated the risk-weight determined by risk-weighting the CLN as an exposure to the issuer; or
 - (ii) the exposure class applicable to the **reference obligation** of the CLN if the CLN is allocated the risk-weight attributable to the reference obligation.
- (b) A multiple-name CLN (e.g. a first-to-default CLN) should be reported in Class XII item 12c.

16. Classification of off-balance sheet exposures

Off-balance sheet exposures must be classified into exposure classes in the same manner as on-balance sheet exposures (i.e. based on the source of credit risk). In particular—

- (a) in the case of an **asset sale with recourse**, a sale and repurchase agreement (other than a repo-style transaction) or a **forward asset purchase**, since the credit risk is arising from the asset that could be repurchased or is to be purchased in the future, the exposure should be classified into the exposure class within which the asset sold/to be purchased (e.g. equities) would fall if the asset were held by the reporting AI;
- (b) in the case of **partly paid-up shares and securities**, since the credit risk associated with the shares or securities is in effect passed to the reporting AI, the exposure should be classified into the exposure class within which the relevant shares or securities would fall if they were on-balance sheet exposures of the reporting AI;

- (c) in the case of a *direct credit substitute* arising from the selling of *credit protection* in the form of *total return swap* or *credit default swap* booked in the reporting AI's banking book, the exposure should be classified into the exposure class within which the relevant reference obligation of the swap would fall if the reference obligation were an on-balance sheet exposure of the reporting AI. If the swap provides credit protection to a basket of reference obligations, the exposure should be classified into **Class XII**; and
- (d) in the case of default risk exposures, the exposures should be classified into the exposure classes within which the counterparties to the derivative contracts or SFTs concerned fall.

B.2 Specific Instructions for Selected Exposure Classes

17. Class I Sovereign Exposures

- (a) Deposits placed with, and loans made to, the Government (including those for the account of the Exchange Fund and the clearing balances with the Exchange Fund) should be reported in **item 1a**.
- (b) Market makers who have short positions in Exchange Fund Bills/Notes may report their net holdings of such instruments provided that the short positions are covered by the Sale and Repurchase Agreements with the HKMA. The following steps should be taken in determining the amount to be reported:
 - (i) the long and short positions of instruments with a residual maturity of less than 1 year may be offset with each other;
 - (ii) the long and short positions of instruments with a residual maturity of not less than 1 year may be offset with each other;
 - (iii) if the net positions of both (i) and (ii) above are long, the positions should be reported in items **1b** and **1c** respectively;
 - (iv) if the net positions in (i) is long and the net position in (ii) is short, or the other way round, the two positions can be netted with each other on a dollar for dollar basis. The resultant net long position, if any, should be reported in item **1b** or **1c** as appropriate.
- (c) An off-balance sheet exposure to a sovereign may be reported in item **1b, 1c, 1d, 1e, 1g, 1h, 1i or 1j** only if it is a credit exposure arising from fixed rate or floating rate debt securities issued or guaranteed by the sovereign, e.g. a forward asset purchase to buy a fixed rate government bond.

18. **Class V Bank Exposures**

For the purposes of this exposure class, clean² export trade bills negotiated under other banks' letters of credit may be reported as exposures to the issuing banks of the letters of credit.

19. **Class VII IPO Financing**

Only exposures arising from IPO financing that are eligible for 0% risk-weight are reported in this exposure class. After payments for allotted securities are made to the relevant receiving bank, any outstanding loan amounts should be reported in the exposure classes to which the obligors belong (e.g. Class XII if the obligor is an individual).

20. **Class VIII Cash and Gold**

(a) **Items 8c to 8e** - Gold bullion

(i) Gold bullion held in safe custody for other entities or customers, which does not expose the reporting AI to any credit risk, is not required to be included in this Form.

(ii) Gold bullion held on an unallocated basis by a third party for the reporting AI backed by gold liabilities should be reported in **item 8d**. **Column A5 of item 8d** is for reporting the weighted average of the **attributed risk-weights** of the third parties.

(iii) Gold bullion held not backed by gold liabilities (i.e. all other holdings of gold bullion not **included in items 8c and 8d**) should be reported in **item 8e**.

(b) **Item 8f** – Exposures collateralized by cash collateral

(i) This item captures exposures collateralized by the following assets (collectively referred to as “cash collateral”)—

(A) cash on deposit with the reporting AI; or

(B) certificates of deposit, or comparable instruments, issued by the reporting AI.

(ii) However, when the cash collateral is held at a third-party bank in a non-custodial arrangement and unconditionally and irrevocably pledged or assigned to the reporting AI, the **credit protection covered portion** concerned must be reported as an exposure to that third-party bank under **Class V** and therefore must not be reported in **item 8f**.

² This includes cases where discrepancies have been accepted by the issuing bank concerned.

21. Class IX Exposures to Items in the Process of Clearing or Settlement

- (a) **Item 9c** refers to the amount of cheques, drafts and other items drawn on other banks that are payable to the account of the reporting AI immediately upon presentation and in the process of collection, and includes—
- (i) cheques and drafts against which the AI has paid to its customers (i.e. by purchasing or discounting the cheques or drafts presented by the customers) and in respect of which it now seeks payment from the drawee banks;
- but excludes—
- (ii) import and export trade bills held by the AI that are in the process of collection (they should be risk-weighted and reported as exposures to the counterparties concerned);
 - (iii) unsettled clearing items that are being processed through any interbank clearing system in Hong Kong (which should be reported in item 9a); and
 - (iv) receivables arising from transactions in securities (other than repo-style transactions), and transactions in foreign exchange and commodities, that are not yet due for settlement (which should be reported in item 9b).
- (b) **Item 9d** captures any transaction in securities (other than repo-style transaction), or any transaction in foreign exchange or commodities, that is entered into on a **delivery-versus-payment (DvP) basis**³ where payment / delivery has not yet taken place after the settlement date.
- (c) **Item 9e** captures any transaction in securities (other than repo-style transaction), or any transaction in foreign exchange or commodities, that is entered into on a non-DvP basis where payment / delivery from the counterparty concerned has not yet taken place after the settlement date. The amount of the payment made or the current market value of the thing delivered by the reporting AI, plus any **positive current exposure** associated with the transaction, should be reported as an exposure in item 9e(i) or (ii), as the case requires. The amount reported in item 9e(i) should be risk-weighted as a loan to the counterparty to the transaction.

22. Class XA Regulatory Residential Real Estate Exposures

- (a) Regulatory residential real estate exposures that are risk-weighted in accordance with section 115B of the BCR should be reported in items 10a(i) to 10b(iii).
- (b) Real estate exposures (other than **ADC exposures**) secured by residential properties outside Hong Kong that are risk-weighted in accordance with section 115C of the BCR, where the exposures are regulatory residential real estate exposures under the capital adequacy standards of the jurisdictions concerned, should be reported in item 10c.

³ DvP transactions include payment-versus-payment (PvP) transactions.

- (c) See paragraph 29(d) for the reporting arrangement of regulatory residential real estate exposures guaranteed by Hong Kong Housing Authority or insured by HKMC Insurance Limited.

23. Class XB Other Real Estate Exposures

- (a) ADC exposures should be reported in item 10d.
- (b) Real estate exposures (other than ADC exposures) that are risk-weighted in accordance with section 115D of the BCR should be reported in item 10e.
- (c) Real estate exposures (other than ADC exposures) secured by residential properties outside Hong Kong that are risk-weighted in accordance with section 115C of the BCR, where the exposures are not regulatory residential real estate exposures under the capital adequacy standards of the jurisdictions concerned, should be reported in item 10f.

24. Class XIC Insignificant and Significant LAC Investments

- (a) Items 11g(i) and 11g(iii) – *Significant LAC investments*

Items 11g(i) and 11g(iii) are intended for reporting instruments that can be excluded from the calculation of the applicable amount mentioned in section 47(1)(d) and section 48(1)(d) of the BCR (e.g. capital instruments mentioned in section 47(2)(a) and section 48(2)(a) of the BCR, and underwriting positions mentioned in section 1(4)(c) of Schedule 4G to the BCR), where the risk-weight applicable to the instruments is not 250%.

- (b) Item 11h – Holdings of non-capital LAC liabilities

This item is for reporting holdings that fall within section 115G(3) of the BCR.

- (c) Apart from the holdings that are risk-weighted in accordance with section 115G of the BCR, CIS exposures (or any part of the exposures) to which section 117F(3) of the BCR applies must also be reported under this exposure class.

25. Class XII Other Exposures

Included in this exposure class are exposures—

- (a) that are subject to credit risk capital requirements; and
- (b) that have not been included in Classes I to XI and Class XIII in this Form.

<u>Item no.</u>	<u>Nature of item</u>
12a.	Exposures to <i>corporates</i> or individuals not elsewhere reported
	This refers to exposures to corporates or individuals that have not been included in other exposure classes and items 12c to 12f below.

12b. Premises, plant and equipment, other fixed assets for own use, and other interest in land

Included are—

- (a) investments in premises, plant and equipment and all other fixed assets of the reporting AI which are held for own use; a right-of-use asset recognized by the reporting AI as a lessee in accordance with the prevailing accounting standards issued by Hong Kong Institute of Certified Public Accountants where the asset leased is a tangible asset; and
- (b) other interests in land which are neither occupied by the reporting AI nor used in the operation of the AI's business.

12c. Multiple-name credit-linked notes / sold credit protection to basket of exposures

This item refers to—

- (a) multiple-name CLNs (e.g. first-to-default CLNs) for which the applicable risk-weights are determined according to **section 117(2)** of the BCR; and
- (b) sold credit protection to a basket of reference obligations, where the protection is in the form of total return swap or credit default swap booked in the reporting AI's banking book and the risk-weight applicable to the protection is determined according to **section 117B(1), (2), (3) or (4)** of the BCR.

12d. First loss portion of credit protection

This item refers to the portion of an exposure that is below the materiality threshold mentioned in **section 135(9)** of the BCR.

12e. Other exposures not elsewhere reported whose risk-weight is 100%

This item refers to investments or exposures that are risk-weighted at 100% and have not been reported in **Classes I to XI, items 12a to 12c and Class XIII**.

12f. Other exposures not elsewhere reported

- (a) **This item refers to investments or exposures that have a risk-weight other than 100% and have not been reported in Classes I to XI, items 12c and 12d) and Class XIII.**
- (b) If necessary, the MA may specify a risk-weight that is greater than 100% for an exposure falling within **section 116** of the BCR. Such an exposure should be reported in this item.
- (c) This item also includes credit protection covered portions of exposures that are—

- secured by recognized collateral for which the applicable risk-weights are determined under Part 7 of the BCR; or
- covered by recognized credit derivative contracts eligible for a risk-weight of 2% or 4% under **section 134(6)** of the BCR (the credit protection covered portions should be reported as a separate item from the credit protection covered portions mentioned in the first bullet and other exposures reported in this item). To avoid doubt, if the recognized credit derivative contracts concerned fall within section 226BI(b), 226I(b) or 226MC(b) of the BCR, the default risk exposures in respect of the contracts are regarded as zero for the purposes of Form MA(BS)3(IIIe).

26. **Class XIII Collective Investment Scheme Exposures (CIS exposures)**

Use of a single approach

- (a) If a **CIS exposure** is risk-weighted only by using one approach, the exposure should be reported in—
- (i) any of **items 13a(i) to 13a(vi)** if either the **look-through approach** (LTA) or the **third-party approach** is used;
 - (ii) any of **items 13b(i) to 13b(vi)** if the **mandate-based approach** (MBA) is used; or
 - (iii) **item 13c(i)** if the **fall-back approach** (FBA) is used.
- (b) “Risk-weight” referred to in **items 13a(i) to 13c(i)** means the effective risk-weight applicable to a CIS exposure determined under Division 2 of Part 6B of the BCR.

Use of a combination of approaches

- (c) If a CIS exposure to a collective investment scheme (CIS) is risk-weighted by using more than one approach, e.g. LTA for on-balance sheet assets held by the CIS and FBA for off-balance sheet exposures incurred by the CIS, the exposure should be reported in any of **items 13d(i) to 13d(vi)**.
- (d) “Risk-weight” referred to in **items 13d(i) to 13d(vi)** is the effective risk-weight (RW) of a CIS exposure calculated as follows:

$$RW = \frac{\sum_a RWA_a}{TA} \cdot L$$

where—

- (i) RWA_a is the RWA of that portion of the underlying exposures of a CIS which is determined by using approach a ;
- (ii) TA is the total assets of the CIS; and

- (iii) *L* is the leverage of the CIS calculated in accordance with section 226ZJ(2)(b) of the BCR.

(See Part IIIa and IIIb – Annex B for numerical examples)

B.3 Reporting of On-balance Sheet Exposures – Column A1 in Division A

27. If an on-balance sheet exposure is not covered by any recognized CRM, the whole ***principal amount*** (after deduction of ***specific provisions***⁴) of the exposure should be reported in column A1 of the row for the exposure class and risk-weight applicable to the exposure.
28. If an on-balance sheet exposure is covered fully or partially by recognized CRM, the exposure should be reported in column A1 in accordance with paragraphs 29 to 30 below.
29. CRM treatment by substitution of risk-weights (applicable to collateral, guarantees and ***credit derivative contracts***)
- (a) The whole principal amount (after deduction of specific provisions) of the exposure should be divided into the credit protection covered portion(s) and the ***credit protection uncovered portion***.
 - (b) Each credit protection covered portion should be reported in column A1 of the row for the exposure class and risk-weight applicable to the credit protection concerned. That is, the credit protection covered portion should be allocated the risk-weight of the collateral, or, in the case of guarantee or credit derivative contract, the attributed risk-weight of the ***credit protection provider*** (or the risk-weight of 2% or 4% if the credit derivative contract falls within section 134(6) of the BCR).
 - (c) The credit protection uncovered portion of the exposure, if any, should be reported in column A1 of the row for the exposure class and risk-weight applicable to the exposure.
 - (d) In the case of—
 - (i) mortgage loans granted for the purchase of flats under the Home Ownership Scheme, Private Sector Participation Scheme, Tenants Purchase Scheme and other similar schemes which are covered by guarantees issued by Hong Kong Housing Authority;
 - (ii) reverse mortgage loans granted under the Reverse Mortgage Programme of HKMC Insurance Limited; and
 - (iii) mortgage loans granted under Mortgage Insurance Programme of HKMC Insurance Limited,

⁴ For the purposes of the BSC approach, “specific provisions”, as defined in section 105 of the BCR, includes partial write-offs.

the credit protection uncovered portion, if any, of the mortgage loans should be reported in column A1 under Class XA. The credit protection covered portion of the mortgage loans in relation to a guarantee provided by Hong Kong Housing Authority or an insurance provided by HKMC Insurance Limited should be reported in Class II and column A1 of item 2a if the guarantee or insurance concerned meets all the criteria set out in section 132 of the BCR.

30. CRM treatment by reduction of principal amount of exposures (applicable to on-balance sheet netting)

The net credit exposure calculated under section 130 of the BCR should be reported in the exposure class to which the exposure belongs and in column A1 of the row for the risk-weight applicable to the exposure.

B.4 Reporting of Off-balance Sheet Exposures other than Default Risk Exposures – Columns A2 and A3 in Division A

31. Off-balance sheet exposures (except default risk exposures and credit exposures arising from unsegregated collateral posted)

- (a) If an off-balance sheet exposure is not covered by any recognized CRM, the whole principal amount (net of specific provisions if applicable) of the exposure and its ***credit equivalent amount*** (CEA) should be reported respectively in column A2 and column A3 of the row for the exposure class and risk-weight applicable to the exposure.
- (b) If an off-balance sheet exposure is covered fully or partially by recognized CRM—
 - (i) the whole principal amount (net of specific provisions if applicable) of the exposure should be reported in column A2 of the row for the exposure class and risk-weight applicable to the exposure;
 - (ii) the amount reported in column A2 should be divided into the credit protection covered and uncovered portions and each of these portions should be multiplied by the ***credit conversion factor*** (CCF) applicable to the exposure;
 - (iii) the CEA of each credit protection covered portion should be reported in column A3 of the row for the exposure class and risk-weight applicable to the credit protection concerned; and
 - (iv) the CEA of the credit protection uncovered portion should be reported in column A3 of the row for the exposure class and risk-weight applicable to the exposure.

32. Off-balance sheet exposures arising from unsegregated collateral posted by reporting AI

In the case of off-balance sheet exposures to which section 118(2) of the BCR applies, the reporting AI should report the whole principal amount (net of specific provisions if applicable) of the collateral in columns A2 and A3 of the row for the exposure class and risk-weight applicable to the person holding the collateral.

B.5 Reporting of Off-balance Sheet Exposures that are Default Risk Exposures – Columns A2 and A4 in Division A

33. For any derivative contracts or SFTs entered into by the reporting AI with a counterparty, the AI should report the amounts listed below in column A2 of the row for the exposure class and risk-weight applicable to the **default risk exposures to the counterparty**:
- (a) in the case of derivative contracts—the gross sum of the stated notional amounts of the derivative contracts entered into with the counterparty;
 - (b) in the case of SFTs—
 - (i) the principal amounts of any securities sold or lent to the counterparty by the AI under the SFTs;
 - (ii) the principal amounts of any money paid or lent to the counterparty by the AI under the SFTs; and
 - (iii) the principal amounts of any securities or money provided to the counterparty as collateral by the AI under the SFTs.
34. For any default risk exposure that is calculated by using the ***SA-CCR approach*** or the ***IMM(CCR) approach***—
- (a) if the exposure is not covered by any recognized CRM⁵, the ***outstanding default risk exposure*** of the ***netting set*** (or the default risk exposure if the netting set contains SFTs only), net of specific provisions if applicable, should be reported in column A4 of the row for the exposure class and risk-weight applicable to the **exposure**;
 - (b) if—
 - (i) the exposure is covered fully or partially by recognized collateral and falls within section 126(1A)(c) of the BCR;
 - (ii) the exposure is covered fully or partially by a recognized guarantee or recognized credit derivative contract; or
 - (iii) the exposure falls within both subparagraphs (i) and (ii),the reporting arrangement for column A4 is as follows:

⁵ In the case of SFTs, “recognized CRM” refers to recognized guarantees and recognized credit derivative contracts as securities or money received by the AI under the SFTs have already been taken into account in the calculations under the IMM(CCR) approach, they should not be taken into account again under Part 5. In the case of derivative contracts, “recognized CRM” refers to recognized collateral whose credit risk mitigation effect can be taken into account under section 126(1A)(c) of the BCR, recognized guarantees and recognized credit derivative contracts.

- (iv) the outstanding default risk exposure or default risk exposure, as the case may be, net of specific provisions if applicable, should be divided into the credit protection covered and uncovered portions;
 - (v) each credit protection covered portion should be reported in column A4 of the row for the exposure class and risk-weight applicable to the credit protection concerned; and
 - (vi) the credit protection uncovered portion should be reported in column A4 of the row for the exposure class and risk-weight applicable to the **exposure**.
35. For any default risk exposure that is calculated by using the *current exposure method*—
- (a) if the exposure is not covered by any recognized CRM, the outstanding default risk exposure of the derivative contract concerned, net of specific provisions if applicable, should be reported in column A4 of the row for the exposure class and risk-weight applicable to the **exposure**;
 - (b) if the exposure is covered fully or partially by one or more than one type of recognized CRM, the outstanding default risk exposure of the derivative contract concerned should be reported in column A4 in the same manner as set out in paragraph **34(b)(iv) to (vi)**.
36. Any default risk exposure that is calculated for an SFT in accordance with section 226MJ of the BCR and covered fully or partially by one or more than one type of recognized CRM should be reported in column A4 in the same manner as set out in paragraph **34(b)(iv) to (vi)**.
37. If the reporting AI issues a CLN to cover a default risk exposure, the amount of the proceeds received from the issuance of the CLN should not be included in the calculation of the amount of the default risk exposure under Division 1A, 2, 2A or 2B of Part 6A of the BCR. The AI may only take into account the CRM effect of the proceeds in the calculation of the RWA of the default risk exposure in accordance with section 135(8) of the BCR.

B.6 Reporting of Risk-weighted Amount – Column A6 in Division A

38. For all items in Division A, the RWA reported in column A6 is calculated by multiplying the sum of the amounts reported in columns A1, A3 and A4 by the risk-weight in column A5.

Section C: Reporting arrangements for Division B of Part IIIa

C.1 General Instructions

39. Unless otherwise stated in these completion instructions, the reporting AI is not required to report in Parts II, III, IV and V of Division B any derivative contract or SFT that is outside the scope of Divisions 1A, 2, 2A and 2B of Part 6A of the BCR (please refer to the “Q&As on exposures to counterparty credit risk and central counterparties” for more information). Default risk exposures reported in columns B12, B21, B27 and B36

should not be reduced by any *CVA loss* or specific provisions made. Outstanding default risk exposures in respect of derivative contracts and any specific provisions made for default risk exposures should be reported in Column A4 in Division A of this Form.

40. Breakdown of CEAs and default risk exposures by exposure class in Division B should be consistent with the exposure classes into which the off-balance sheet exposures concerned are classified for the purposes of Division A.

C.2 Part I of Division B - Off-balance Sheet Exposures other than Default Risk Exposures

41. The reporting AI should classify each of its off-balance sheet exposures other than default risk exposures into the appropriate standard items listed in **paragraph 42** and report the exposures in Part I of Division B of this Form.
42. CCFs for items 1 to **11** are set out in **Schedule 6** to the BCR.

<u>Item no.</u>	<u>Nature of item</u>
-----------------	-----------------------

1.	Direct credit substitutes
----	---------------------------

2.	<i>Transaction-related contingencies</i>
----	---

3.	Trade-related contingencies
----	-----------------------------

4.	Asset sales with recourse
----	---------------------------

5.	Sale and repurchase agreements (excluding repo-style transactions)
-----------	---

6.	Forward asset purchases
-----------	-------------------------

This item also captures off-balance sheet exposures arising from the reporting AI's commitments to subscribe to CISs' future capital calls.

To avoid doubt, forward start repo-style transactions should be reported in **item 10b or c** instead of this item.

7.	Partly paid-up shares and securities
-----------	--------------------------------------

8.	<i>Forward forward deposits placed</i>
-----------	---

This refers to a commitment of the reporting AI to place a forward forward deposit.

If the reporting AI has contracted to receive a forward forward deposit, failure to deliver by the counterparty will result in an unanticipated change in the AI's interest rate exposure and may involve a replacement cost. Such exposure should therefore be regarded as default risk

exposures arising from *interest rate contracts* and reported in Part II, III or V of Division B, as the case requires.

9. *Note issuance and revolving underwriting facilities*

10a. to c. Other *commitments*

Included is the undrawn portion of any arrangement that falls within the definition of “commitment” defined in section 2 of Schedule 6 to the BCR and does not fall within any of items 1 to 9.

A commitment is regarded as being created no later than the acceptance in writing by the customer of the facility offered.

In the case of an off-balance sheet exposure (exposure A) arising from a commitment the drawdown of which will give rise to another off-balance sheet exposure (exposure B) falling within any of items 1 to 9 and 11, the CCF applicable to exposure A should be the lower of—

- (a) the CCF applicable to exposure A according to Schedule 6 to the BCR; and
- (b) the CCF applicable to exposure B according to that Schedule.

10a. *Exempt commitments*

10b. Other commitments (CCF at 10%)

This item captures commitments (other than exempt commitments) that—

- (a) may be cancelled at any time unconditionally by the reporting AI concerned without prior notice; or
- (b) provide for automatic cancellation due to deterioration in the creditworthiness of the persons to whom the reporting AI has made the commitments.

10c. Other commitments (CCF at 40%)

This item captures commitments that do not fall within items 10a and 10b.

11a. to d. Off-balance sheet exposures not specified above

11a. This item captures off-balance sheet exposures that do not fall within items 1 to 10c and that are subject to a CCF of 100%. Such exposures include, but not limited to—

- (a) off-balance sheet exposures to the credit risk of the underlying assets of cash-settled derivative contracts (e.g. equity forward contracts) booked in the reporting AI’s banking book; and

- (b) credit exposures to persons holding unsegregated collateral posted by the reporting AI (other than collateral posted that is included in the default risk exposures reported in Part II, III, IV or V of Division B of this Form and Form MA(BS)3(IIIe)) (see section 118(2) of the BCR).

11b. to d. These items capture off-balance sheet exposures that do not fall within items 1 to **10c** and that are subject to a CCF specified in Part 2 of Schedule 1 to the BCR. For other off-balance sheet exposures not mentioned above, the reporting AI should consult the HKMA on the reporting arrangements.

43. The reporting AI should report each of its off-balance sheet exposures as follows:

- (a) report in column B2 the principal amount (net of specific provisions if applicable) of the exposure;
- (b) report in column B3 the CEA of the exposure (i.e. the product of the amount reported in column B2 and the applicable CCF specified in column B1); and
- (c) report the CEA of the exposure in one of columns B4 to B10⁶ if the exposure falls within any one of the following exposure classes—
 - (i) Class I Sovereign Exposures;
 - (ii) Class II Public Sector Entity (PSE) Exposures;
 - (iii) Class III Multilateral Development Bank (MDB) Exposures⁷;
 - (iv) Class IV Unspecified Multilateral Body Exposures⁷;**
 - (v) **Class V Bank Exposures;**
 - (vi) Class XA Regulatory Residential Real Estate Exposures⁸;**
 - (vii) Class XB Other Real Estate Exposures⁸;**
 - (viii) **Class XII Other Exposures;** and
 - (ix) **Class XIII Collective Investment Scheme Exposures (CIS exposures).**

⁶ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in column B3 would be greater than or equal to the sum of the total amounts reported in columns B4 to **B10**.

⁷ To be reported in column B6.

⁸ To be reported in column B8.

**C.3 Part II of Division B - Default Risk Exposures in respect of Derivative Contracts⁹
(Current Exposure Method)**

44. If the reporting AI uses the current exposure method to calculate default risk exposures, it should report the exposures so calculated in the appropriate items in Part II of Division B.

<u>Item no.</u>	<u>Nature of item</u>
12.	Interest rate contracts
13.	<i>Exchange rate contracts</i>
14.	<i>Credit-related derivative contracts</i>
15.	<i>Equity-related derivative contracts</i>
16.	<i>Commodity-related derivative contracts</i>
17.	Other derivative contracts not specified above
18.	<u>Of which: Offsetting or CCP-related transactions with clearing members or clearing clients</u>
	This item is for reporting the amounts captured under items 12 to 17 that are related to <i>offsetting transactions</i> or <i>CCP-related transactions</i> entered into by the reporting AI with <i>clearing members</i> or <i>clearing clients</i> (see <u>Part IIIe – Annex A</u> and paragraph 5 of the completion instructions for Form MA(BS)3(IIIe) for more information on exposures related to centrally cleared transactions that should be reported in this Form).

45. The reporting AI should report each of its derivative contracts entered into with a counterparty as follows:

- (a) report in **column B11** the stated notional amount of the derivative contract;
- (b) report in **column B12** the default risk exposure of the derivative contract calculated under the current exposure method; and
- (c) report the default risk exposure of the derivative contract in one of **columns B13 to B17**¹⁰ if the counterparty to the contract is a sovereign, PSE, MDB, **unspecified multilateral body**, bank, corporate or individual.

⁹ Derivative contracts include long settlement transactions that fall within paragraph (c) or (d) of the definition of “derivative contract” in section 2(1) of the BCR. For example, a long settlement transaction that is a FX spot transaction must be reported as an exchange rate contract.

¹⁰ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in **column B12** would be greater than or equal to the sum of the total amounts reported in **columns B13 to B17**.

46. The total of all stated notional amounts reported in **column B11** of each of **items 12 to 18** should be the gross sum of the stated notional amounts.

47. To avoid doubt, sold options falling within section 226MB(2) of the BCR should also be reported. However, the reporting AI is not required to report credit derivative contracts falling within section 226MC of the BCR in Part II of Division B¹¹.

C.4 Part III of Division B - Default Risk Exposures in respect of Derivative Contracts¹² (SA-CCR approach)

48. If the reporting AI uses the SA-CCR approach to calculate default risk exposures, it should report the exposures so calculated in the appropriate items in Part III of Division B (See Part IIIa and IIIb – Annex A for numerical examples).

<u>Item no.</u>	<u>Nature of item</u>
-----------------	-----------------------

19.	<u>Unmargined contracts not covered by recognized netting</u>
------------	---

This item captures derivative contracts—

- (a) that fall within the definition of *unmargined contract* in section 226BA of the BCR; and
- (b) that are not covered by recognized netting.

The following contracts should also be reported in this item—

- (a) contracts that fall within section 226BH(2) or (4) of the BCR; and
- (b) contracts that have been removed from the netting sets concerned under section 226BH(3)(b) or (5) of the BCR.

20.	<u>Margined contracts not covered by recognized netting</u>
------------	---

This item captures derivative contracts—

- (a) that fall within the definition of *margined contract* in section 226BA of the BCR; and
- (b) that are not covered by recognized netting.

21.	<u>Contracts covered by recognized netting</u>
------------	--

This item captures derivative contracts (whether they are margined contracts or not) covered by recognized netting.

¹¹ This is to avoid double counting as the notional amounts of the contracts concerned are somehow reflected in the amounts reported in Division A (e.g. credit protection covered portions) or Part I of Division B (e.g. direct credit substitutes).

¹² See footnote **9**.

22. Out of the amounts reported in **items 19, 20 and 21**, the amounts for offsetting or CCP-related transactions with clearing members or clearing clients

This item is for reporting the amounts captured under **items 19 to 21** that are related to offsetting transactions or CCP-related transactions entered into by the reporting AI with clearing members or clearing clients (see Part IIIe – Annex A and paragraph 5 of the completion instructions for Form MA(BS)3(IIIe) for more information on exposures related to centrally cleared transactions that should be reported in this Form).

49. For all items in Part III of Division B—

(a) if a netting set contains a credit derivative contract that falls within section 226BI of the BCR and the reporting AI has—

- (i) treated the default risk exposure of such credit derivative contract as zero; and
- (ii) removed such credit derivative contract from the netting set (i.e. the default risk exposure of the netting set is calculated as if the credit derivative contract did not exist),

the reporting AI is not required to report such credit derivative contract in Part III of Division B¹³;

(b) the amount reported in **column B18** is the gross sum of the stated notional amounts of the relevant derivative contracts.

50. For **item 19**—

(a) report in **column B19** the replacement cost of a derivative contract calculated in accordance with Division 1A of Part 6A of the BCR by using the formula applicable to the contract. In the case of a sold option whose default risk exposure is set to zero under 226BH(2) or (3) of the BCR, the replacement cost of the option may be reported as zero;

(b) report in **column B20** the potential future exposure of the derivative contract calculated in accordance with Division 1A of Part 6A of the BCR by using the formulas applicable to the asset class into which the contract falls. In the case of a sold option whose default risk exposure is set to zero under section 226BH(2) or (3) of the BCR, the potential future exposure of the option may be reported as zero;

(c) report in **column B21** the default risk exposure of the derivative contract (i.e. the sum of the amounts reported in **columns B19 and B20** multiplied by 1.4); and

¹³ See footnote **11**.

- (d) report the default risk exposure of the derivative contract in one of **columns B22 to B26**¹⁴ if the counterparty to the contract is a sovereign, PSE, MDB, **unspecified multilateral body**, bank, corporate or individual.
51. The reporting arrangements mentioned in **paragraph 50** also apply to **item 20**. Also—
- (a) if the default risk exposure calculated for a margined contract on an unmargined basis is regarded as the default risk exposure of the contract, the default risk exposure calculated on an unmargined basis should be reported in **column B21** (see section 226BH(1) of the BCR);
 - (b) if more than one derivative contract is covered by a single **variation margin agreement**—
 - (i) the stated notional amount of each of the derivative contracts should be reported in **column B18** of **item 20a, 20b, 20c, 20d or 20e**, as the case requires;
 - (ii) there is no need to report the replacement cost, potential future exposure and default risk exposure calculated for these contracts by type of contract. The amounts calculated under sections 226BE(3), 226BS and 226BE(2) of the BCR should be reported in **columns B19, B20 and B21** of **item 20f** respectively.
52. For **item 21**, the replacement cost, potential future exposure and default risk exposure of a netting set or a group of netting sets, as the case may be, should be reported in the row “SUBTOTAL” of **columns B19, B20 and B21** respectively. The reporting arrangements mentioned in **paragraphs 50(c) and 50(d)** and **paragraph 51(a)** apply to the netting set or the group of netting sets as they apply to a single derivative contract.

C.5 Part IV of Division B - Default Risk Exposures in respect of SFTs (Non-IMM(CCR) Approach)

53. If the reporting AI calculates default risk exposures in respect of SFTs under Division 2B of Part 6A of the BCR, it should report the exposures so calculated in the appropriate items in **Part IV of Division B** as follows:
- (a) Under **item 23a**, for each of the SFTs entered into by the reporting AI—
 - (i) report in **column B27** the default risk exposure of the SFT calculated under section 226MJ of the BCR; and
 - (ii) report the default risk exposure in one of **columns B28 to B32**¹⁵ if the counterparty to the SFT is a sovereign, PSE, MDB, **unspecified multilateral body**, bank, corporate or individual.
 - (b) **Item 23b** is for reporting the amounts captured under **item 23a** that are related to offsetting transactions or CCP-related transactions entered into by the reporting AI with clearing members or clearing clients (see **Part IIIe – Annex A** and paragraph

¹⁴ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in **column B21** would be greater than or equal to the sum of the total amounts reported in **columns B22 to B26**.

¹⁵ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in **column B27** would be greater than or equal to the sum of the total amounts reported in **columns B28 to B32**.

5 of the completion instructions for Form MA(BS)3(IIIe) for more information on exposures related to centrally cleared transactions that should be reported in this Form).

C.6 Part V of Division B - Default Risk Exposures (IMM(CCR) Approach)

54. If the reporting AI uses the IMM(CCR) approach to calculate default risk exposures, it should report the exposures so calculated in the appropriate items in Part V of Division B.

<u>Item no.</u>	<u>Nature of item</u>
-----------------	-----------------------

24.	<u>Portfolio-level risk-weighted amount based on current market data</u>
------------	--

The portfolio-level RWA calculated under section 226D(1)(a) and (2)(a) of the BCR should be reported in this item.

25.	<u>Portfolio-level risk-weighted amount based on stress calibration</u>
------------	---

The portfolio-level RWA calculated under section 226D(1)(b) and (2)(b) of the BCR should be reported in this item.

Only the higher of **item 24** and **item 25** will be used in the calculation of the total RWA for credit risk under the BSC approach.

26. to 29.	Items 26 to 29 capture the breakdown of the default risk exposures included in the portfolio-level RWA that will be used in the capital adequacy ratio calculation. In other words, if the portfolio-level RWA calculated using current market data is larger, the default risk exposures reported in items 26 to 29 should be those used in calculating the RWA reported in item 24 .
-------------------	---

26.	<u>Netting sets (not subject to recognized netting)</u>
------------	---

This item captures transactions—

- (a) that are not subject to recognized netting; or
- (b) that are required to be treated as a separate netting set under section 226J(1) of the BCR.

If the reporting AI's **IMM(CCR) approval** covers one or more than one of the following categories of transactions:

- (a) derivative contracts (excluding **long settlement transactions** (LSTs));
- (b) SFTs (excluding LSTs); and
- (c) LSTs,

the AI should report each of its transactions in **item 26a, 26b** or **26c** based on the category within which the transaction falls.

27. Netting sets (subject to valid bilateral netting agreements)

This item captures transactions—

- (a) that are subject to ***valid bilateral netting agreements***; and
- (b) that are not required to be treated as a separate netting set under section 226J(1) of the BCR.

Derivative contracts and SFTs covered by the reporting AI's IMM(CCR) approval must be reported in **items 27a** and **27b** respectively. The amounts reported in these two items will include derivative contracts and SFTs that are LSTs unless these LSTs are not covered by the IMM(CCR) approval.

If the reporting AI's IMM(CCR) approval only covers LSTs, the AI should report the LSTs in **item 27c**.

28. Netting sets (subject to valid cross-product netting agreements)

This item captures transactions—

- (a) that are subject to ***valid cross-product netting agreements***; and
- (b) that are not required to be treated as a separate netting set under section 226J(1) of the BCR.

LSTs are included unless the IMM(CCR) approval of the reporting AI does not cover LSTs.

29. Out of the amounts reported in **items 26, 27** and **28**, the amounts for offsetting or CCP-related transactions with clearing members or clearing clients

This item is for reporting the amounts captured under **items 26** to **28** that are related to offsetting transactions or CCP-related transactions entered into by the reporting AI with clearing members or clearing clients (see Part IIIe – Annex A and paragraph 5 of the completion instructions for Form MA(BS)3(IIIe) for more information on exposures related to centrally cleared transactions that should be reported in this Form).

55. The reporting AI should report the default risk exposures calculated under the IMM(CCR) approach in Part V of Division B of this Form as follows:

- (a) report in **column B34** of **items 26a, 26c, 27a, 27c, 28a** and **29a** the gross sum of the stated notional amounts of the derivative contracts and LSTs concerned;
- (b) report in **column B35** of **items 26b, 26c, 27b, 27c, 28b, 28c** and **29a** the principal amounts of the securities sold, lent or delivered, or the money paid, by the AI to the counterparties under the SFTs and LSTs concerned;

- (c) report in **column B36** of **items 26a to 27c, 28** and **29a** the default risk exposures of the netting sets concerned calculated under section 226E of the BCR. In the case of **item 26**, the netting set only contains one transaction; and
 - (d) report the default risk exposure of each of the netting sets reported in **column B36** in one of **columns B37 to B41**¹⁶ if the counterparty to the netting set is a sovereign, PSE, MDB, **unspecified multilateral body**, bank, corporate or individual.
56. If a netting set contains a credit derivative contract that falls within section 226I of the BCR and the reporting AI has—
- (a) treated the default risk exposure of such credit derivative contract as zero; and
 - (b) removed such credit derivative contract from the netting set (i.e. the default risk exposure of the netting set is calculated as if the credit derivative contract did not exist),

the reporting AI is not required to report such credit derivative contract in Part V of Division B of this Form¹⁷.

C.7 Multiple Credit Risk Mitigation

57. If an exposure is covered by two or more forms of recognized CRM (e.g. with both collateral and guarantee partially covering the exposure), the treatments for the recognized CRM are set out in section 136(1) and (2) of the BCR. The calculation of the RWA of each portion will be done separately.
58. Unless otherwise stated in the BCR (**e.g. section 126(1C)**), the reporting AI may determine, at its discretion, how recognized CRM that is shared by **two or more on-balance sheet and/or off-balance sheet** exposures are allocated to each of the exposures for the purpose of RWA calculation, **as long as the AI's allocation is not inconsistent with the terms and conditions of the relevant legal documentation**.

C.8 Maturity Mismatches

59. If the credit protection provided has a residual maturity which is shorter than the residual maturity of the exposure, the reporting AI must not take into account the CRM effect of that credit protection.

Hong Kong Monetary Authority
March 2025

¹⁶ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in **column B36** would be greater than or equal to the sum of the total amounts reported in **columns B37 to B41**.

¹⁷ See footnote **11**.

Completion Instructions

Return of Capital Adequacy Ratio Part IIIb – Risk-weighted Amount for Credit Risk Standardized (Credit Risk) Approach Form MA(BS)3(IIIb)

Introduction

1. Form MA(BS)3(IIIb) of Part III should be completed by each authorized institution (AI) incorporated in Hong Kong using the *standardized (credit risk) approach (STC approach)* to calculate *credit risk* under Part 4 of the Banking (Capital) Rules (BCR).
2. This Form covers the following exposures of a reporting AI:
 - (a) all on-balance sheet exposures and off-balance sheet exposures booked in its *banking book*;
 - (b) all *default risk exposures* to counterparties under *securities financing transactions (SFTs)* and *derivative contracts* booked in its *trading book*;
 - (c) all credit exposures to counterparties in respect of transactions (other than *repo-style transactions*) in securities, foreign exchange or *commodities* booked in its trading book that remain outstanding after the settlement dates in respect of the transactions;
 - (d) all credit exposures to counterparties in respect of *unsegregated collateral* posted by the AI and held by the counterparties for transactions or contracts booked in AI's trading book; and
 - (e) if applicable, the AI's market risk exposures that are exempted from section 17 under section 22 of the BCR, except for its total net open position in foreign exchange exposures as derived in accordance with section 296 of the BCR.
3. This Form does not cover the following exposures:
 - (a) portions of exposures (which may be all of the exposures) that are required to be deducted from any of the AI's *CET1 capital, Additional Tier 1 capital* and *Tier 2 capital* under Division 4 of Part 3 of the BCR (which should be reported in Form MA(BS)3(II));
 - (b) *securitization exposures* (which should be reported in Form MA(BS)3(IIIId));
 - (c) the *underlying exposures* of *eligible traditional securitization transactions* if the AI opts to apply the treatment under section 230(1) of the BCR to the underlying exposures;
 - (d) *default fund contributions* made to *qualifying CCPs* and *non-qualifying CCPs* (which should be reported in Form MA(BS)3(IIIe));

- (e) default risk exposures to qualifying CCPs (which should be reported in Form MA(BS)3(IIIe)); and
 - (f) exposures that are risk-weighted as if they were default risk exposures to qualifying CCPs under Division 4 of Part 6A (which should be reported in Form MA(BS)3(IIIe)).
4. This Form and these completion instructions should be read in conjunction with the BCR and the relevant supervisory policy/guidance related to the capital adequacy framework.

Section A: Definitions and Clarification

5. In these instructions—
- (a) “gross sum of the stated notional amounts” refers to the sum of the stated notional amounts of all relevant contracts, without the stated notional amounts of contracts with positive replacement costs being reduced by the stated notional amounts of contracts with negative or zero replacement costs, regardless of whether the contracts are subject to ***recognized netting***.
 - (b) “recognized CRM” refers to ***recognized collateral***, recognized netting, ***recognized guarantees*** and ***recognized credit derivative contracts***. To avoid doubt, guarantees issued by other offices of the reporting AI are not regarded as ***recognized credit risk mitigation***. Debt securities which are ***re-securitization exposures*** (whether rated or not) cannot be recognized as collateral (see sections 79(2) and 80(2) of the BCR).
 - (c) “stated notional amount” means the nominal ***notional amount*** of a derivative contract. It should not be confused with any effective notional amount or adjusted notional calculated for the derivative contract under Part 6A of the BCR.
6. Double counting of exposures arising from the same contract or transaction should be avoided. For example, only the undrawn portion of a loan commitment should be reported as an off-balance sheet exposure while the actual amount which has been lent out should be reported as an on-balance sheet exposure. ***Trade-related contingencies***, such as trust receipts and shipping guarantees, which have already been reported as letters of credit issued or loans against import bills etc. should not be counted again as off-balance sheet exposures.
7. In certain cases, exposures to counterparties arising from derivative contracts entered into by the reporting AI with those counterparties may already be reflected, in part, on the reporting AI’s balance sheet. For example, the AI may have recorded the ***fair value*** of a derivative contract on its balance sheet. To avoid double counting, such amount should be excluded from on-balance sheet exposures and treated as off-balance sheet exposures for the purposes of this Form.
8. Accruals on an exposure should be classified and risk-weighted in the same way as the exposure. Accruals which cannot be so classified should, with the ***prior consent*** of the Monetary Authority (MA), be included in **Class XV** (Other Exposures which are not ***Defaulted Exposures***).
9. For ***specified SFTs*** booked in the reporting AI’s banking book—

- (a) if the assets underlying the SFTs are ***non-securitization exposures***, the AI's credit exposures to the assets underlying the SFTs should be reported in Division A of this Form (see also **section 68C(2)** of the BCR);
- (b) if the assets underlying the SFTs are securitization exposures, the AI's credit exposures to the assets underlying the SFTs should be risk-weighted in accordance with Part 7 of the BCR and reported in Form MA(BS)3(IIIId) (see also **section 68C(3)** of the BCR).
10. For **specified** SFTs booked in the reporting AI's trading book, the AI's exposures to the assets underlying the SFTs are market risk exposures. Hence, the AI only needs to calculate the ***risk-weighted amounts*** (RWAs) of its market risk exposures to the assets in accordance with Part 8 of the BCR (see **section 68C(4)** of the BCR) and reports the exposures in **the corresponding Return Form for market risk**. The AI is not required to calculate any RWA for the credit risk of the assets. However, if the AI is granted an exemption under section 22 of the BCR, the AI should comply with **section 68C(2)** instead of **section 68C(4) of the BCR** in calculating the RWAs of its exposures to the assets, and report the exposures in this Form instead.
11. An ***originating institution*** of a ***non-eligible securitization transaction*** must report the RWA of the underlying exposures of the transaction in this Form as if the exposures were not securitized. If the credit risk mitigation (CRM) afforded to the underlying exposures of an ***eligible synthetic securitization transaction*** is not in the form of ***tranching credit protection***, the underlying exposures must be reported in this Form in the same manner as a non-eligible securitization transaction except that the CRM for transferring the credit risk of the underlying exposures to the other parties to the transaction can be taken into account in the RWA calculation and therefore should also be included in the reporting. However, if the CRM is in the form of tranching credit protection, both the underlying exposures and the CRM effect must be reported in Form MA(BS)3(IIIId) (please see paragraph 15(b) of the completion instructions for Form MA(BS)3(IIIId)). For cases which are not specified in these instructions or in any other supervisory guidance relevant to ***securitization transactions***, reporting AIs should consult the HKMA on the reporting arrangements.

Section B: Reporting arrangements for Division A of Part IIIb

B.1 Exposure Classification

12. Division A of this Form is organized according to the following standard exposure classes into which on-balance sheet and off-balance sheet exposures should be classified under the STC approach:

Class I	<i>Sovereign</i> Exposures
Class II	<i>Public Sector Entity</i> Exposures
Class III	Multilateral Development Bank (MDB) Exposures
Class IV	<i>Unspecified Multilateral Body</i> Exposures
Class V	<i>Bank</i> Exposures
Class VI	<i>Eligible Covered Bond</i> Exposures

Class VII	<i>Qualifying Non-bank Financial Institution (QNBFI) Exposures</i>
Class VIII	<i>Corporate</i> Exposures
Class IX	Retail Exposures
Class X	IPO Financing
Class XIA	Regulatory Residential Real Estate Exposures
Class XIB	Regulatory Commercial Real Estate (CRE) Exposures
Class XIC	<i>Real Estate Exposures</i> other than <i>Regulatory Real Estate Exposures</i>
Class XID	<i>Land Acquisition, Development and Construction Exposures</i>
Class XIIA	<i>Equity Exposures</i>
Class XIIB	<i>Significant Capital Investments in Commercial Entities</i>
Class XIIC	Insignificant and Significant LAC Investments
Class XIID	<i>Subordinated Debts</i>
Class XIII	Cash and Gold
Class XIV	Exposures to Items in the Process of Clearing or Settlement
Class XV	Other Exposures which are not Defaulted Exposures
Class XVI	<i>Defaulted Exposures</i>
Class XVII	<i>Collective Investment Scheme</i> Exposures (<i>CIS exposures</i>)

13. The exposure classes are mutually exclusive and therefore each exposure should be reported under only one of them. However, it should be noted that a single transaction may give rise to more than one exposure. For example, a derivative contract booked in the banking book has an exposure to the counterparty to the derivative contract and may also have a credit exposure to the asset underlying the derivative contract.

14. Classification of ***credit-linked notes*** (CLNs) held

(a) A single-name CLN that has an ***ECAI issue specific rating*** should be reported in Division A under—

- (i) the exposure class applicable to the issuer of the CLN if the CLN is allocated the risk-weight determined **in accordance with section 68(1)(b) of the BCR**; or
- (ii) the exposure class applicable to the ***reference obligation*** of the CLN if the CLN is allocated the risk-weight attributable to the reference obligation determined **in accordance with section 68(1)(c) of the BCR**.

If no scale of credit quality grades is applicable to the ECAI issue specific rating of the CLN (e.g. the rating is issued by a ***Type B ECAI*** but the use of the ECAI ratings issued by such Type B ECAI to risk-weight the CLN is prohibited by a restriction published by the MA under section 4B(3) of the BCR), the AI should classify the CLN into an exposure class in accordance with paragraph (b).

(b) A single-name CLN without an ECAI issue specific rating should be reported in Division A under—

- (i) the exposure class applicable to the issuer of the CLN if the CLN is allocated the risk-weight determined in accordance with section 68(2)(a) of the BCR; or
 - (ii) the exposure class applicable to the reference obligation of the CLN if the CLN is allocated the risk-weight attributable to the reference obligation determined in accordance with section 68(2)(b) of the BCR.
- (c) A multiple-name CLN (e.g. a first-to-default CLN) should be reported in Class XV item 15b regardless of whether the CLN has an ECAI issue specific rating or not.
15. Classification of off-balance sheet exposures

Off-balance sheet exposures must be classified into exposure classes in the same manner as on-balance sheet exposures (i.e. based on the source of credit risk). In particular—

- (a) in the case of an *asset sale with recourse*, a sale and repurchase agreement (other than a repo-style transaction) or a *forward asset purchase*, since the credit risk is arising from the asset that could be repurchased or is to be purchased in the future, the exposure should be classified into the exposure class within which the asset sold/to be purchased (e.g. equities) would fall if the asset were held by the reporting AI;
- (b) in the case of *partly paid-up shares and securities*, since the credit risk associated with the shares or securities is in effect passed to the reporting AI, the exposure should be classified into the exposure class within which the relevant shares or securities would fall if they were on-balance sheet exposures of the reporting AI;
- (c) in the case of a *direct credit substitute* arising from the selling of *credit protection* in the form of *total return swap* or *credit default swap* booked in the reporting AI's banking book, the exposure should be classified into the exposure class within which the relevant reference obligation of the swap would fall if the reference obligation were an on-balance sheet exposure of the reporting AI. If the swap provides credit protection to a basket of reference obligations, the exposure should be classified into Class XV; and
- (d) in the case of default risk exposures, the exposures should be classified into the exposure classes within which the counterparties to the derivative contracts or SFTs concerned fall.

B.2 Specific Instructions related to the Use of ECAI Ratings

- 16. The latest list of *external credit assessment institutions* (ECAIs) and the mapping tables of these ECAIs' ratings with *credit quality grades* are published on the HKMA's website.
- 17. The use of *ECAI ratings* assigned by Type B ECAIs are subject to one or more than one restriction published by the MA under section 4B(3) of the BCR. AIs should refer to the HKMA's website for the restriction(s) imposed on each Type B ECAI.
- 18. If an exposure does not have any ECAI issue specific rating, but the *obligor* of the exposure has at least one *ECAI issuer rating* and/or any of its other debt obligations has

at least one **long-term ECAI issue specific rating**, the reporting AI should apply section 54E to determine which of these ECAI ratings must be used for the purpose of determining the risk-weight applicable to the exposure.

B.3 Specific Instructions for Selected Exposure Classes

19. Class I Sovereign Exposures

Item **1a** - **domestic currency exposures** to the Government

- (a) Only exposures to the Government, such as deposits placed with, and loans made to, the Government (including those for the account of the Exchange Fund and the clearing balances with the Exchange Fund), that are denominated and funded in Hong Kong dollars can be reported in **item 1a(i)**. Foreign currency exposures to the Government should be reported in **item 1b**.
- (b) The **credit protection covered portion** of a repo-style transaction secured by debt securities denominated in Hong Kong dollars issued by the Government should be reported in **item 1a(iii)** if the reporting AI uses the **simple approach** to take into account the CRM effect of the debt securities and any one or more of the conditions set out in **section 82(4)** of the BCR are not met.
- (c) Market makers who have short positions in Exchange Fund Bills/Notes may report their net holdings of such instruments provided that the short positions are covered by the Sale and Repurchase Agreements with the HKMA. The following steps should be taken in determining the amount to be reported in **item 1a(i)**:
 - (i) the long and short positions of instruments with a residual maturity of less than 1 year may be offset with each other;
 - (ii) the long and short positions of instruments with a residual maturity of not less than 1 year may be offset with each other;
 - (iii) if the net positions of both (i) and (ii) above are long, the positions should be reported;
 - (iv) if the net position in (i) is long and the net position in (ii) is short, or the other way round, the two positions can be netted with each other on a dollar for dollar basis. The resultant net long position, if any, should be reported.

20. Class II Public Sector Entity Exposures

- (a) Exposures to public sector entities, including **sovereign foreign public sector entities**, should be reported under this exposure class.
- (b) The **credit protection covered portion** of a repo-style transaction secured by debt securities issued by a sovereign foreign public sector entity should be reported in **item 2b** if the reporting AI uses the simple approach to take into account the CRM effect of the debt securities and section 82(3)(b) of the BCR is applicable to the repo-style transaction.

21. Class III Multilateral Development Bank (MDB) Exposures

Items 3b to 3e refer to MDB exposures that are not eligible for 0% risk-weight (i.e. those MDBs whose ECAI ratings have been downgraded to A+ / A1 or below).

22. Class V Bank Exposures

For the purposes of this exposure class, clean¹ export trade bills negotiated under other banks' letters of credit may be reported as exposures to the issuing banks of the letters of credit.

23. Class VII Qualifying Non-bank Financial Institution (QNBFI) Exposures

Unrated exposures to financial institutions that fall within paragraph (a) or (b) of the definition of “qualifying non-bank financial institution” in section 2(1) of the BCR should be reported in item 7b(iv) (if the exposures are risk-weighted at 50%) or item 7b(v) (if the exposures are risk-weighted at 75%).

24. Class VIII Corporate Exposures

(a) To avoid doubt, corporate exposures include exposures to regional, provincial or municipal governments, and financial entities that are not eligible for being classified as “bank” or “qualifying non-bank financial institution” under the BCR.

(b) In this Form—

(i) “rated general corporate exposures” (items 8a(i) to 8a(vi)) means **general corporate exposures** that are not unrated exposures; and

(ii) “unrated general corporate exposures” (items 8b(i) to 8b(iii)) means general corporate exposures that are unrated exposures.

(iii) “rated specialized lending exposures” (items 8c(i) to 8c(v)) means specialized lending exposures that are risk-weighted based on the ECAI issue specific ratings assigned to the exposures; and

(iv) “unrated specialized lending exposures” (items 8d(i) to 8d(iii)) means specialized lending exposures that are not rated specialized lending exposures.

25. Class IX Retail Exposures

(a) Items 9a and 9b are for reporting **regulatory retail exposures** that are not **unhedged credit exposures**.

(b) If a borrower has been granted two or more **revolving** facilities and at least one non-revolving facility and all of those facilities are regulatory retail exposures, the facilities should be reported as follows:

¹ This includes cases where discrepancies have been accepted by the issuing bank concerned.

- (i) any of those revolving facilities in respect of which the borrower is a **transactor** should be reported in *item 9a(i)*;
- (ii) any of those revolving facilities in respect of which the borrower is not a transactor should be reported in *item 9b*;
- (iii) the non-revolving facility/facilities should be reported in—
 - (A) *item 9a(ii)* if the AI knows that the borrower is a transactor in respect of at least one revolving facility;
 - (B) *item 9b* if the AI knows that the borrower is not a transactor in respect of all of the borrower's revolving facilities; or
 - (C) *item 9b* if the AI does not know whether the borrower is a transactor in respect of any revolving facility.
- (c) Item *9c* is for reporting exposures to individuals (other than those falling within Classes X, XIA, XIB, XIC and XID) that are neither regulatory retail exposures nor unhedged credit exposures.
- (d) Regulatory retail exposures and exposures to individuals (other than those that are regulatory retail exposures and those falling within Classes X, XIA, XIB, XIC and XID) that are unhedged credit exposures must be reported in item *9d* instead of items *9a(i)* to *9c*.
- (e) Column A6 of item *9d* is for reporting the weighted average of the risk-weights of the unhedged credit exposures (see Part IIIb – Annex B for a numerical example).

26. **Class X IPO Financing**

Only exposures arising from IPO financing that are eligible for 0% risk-weight are reported in this exposure class. After payments for allotted securities are made to the relevant receiving bank, any outstanding loan amounts should be reported in the exposure classes to which the obligors belong (e.g. Class IX if the obligor is an individual).

27. **Class XIA Regulatory Residential Real Estate Exposures**

- (a) Items *11a* and *11b* are for reporting regulatory residential real estate exposures that are risk-weighted in accordance with section 65B(2) or (3) of the BCR and that are not unhedged credit exposures.
- (b) Item *11c* is for reporting regulatory residential real estate exposures that are unhedged credit exposures. Column A6 of item *11c* is for reporting the weighted average of the risk-weights of the unhedged credit exposures, which is calculated in the same manner as the risk-weight reported in column A6 of item *9d*.
- (c) Real estate exposures (other than **ADC exposures**) secured by residential properties outside Hong Kong that are risk-weighted in accordance with section 65E of the BCR, where the exposures are regulatory real estate exposures under the capital adequacy standards of the jurisdictions concerned, should be reported in item *11d*.

- (d) See paragraph 39(d) for the reporting arrangement of regulatory residential real estate exposures guaranteed by Hong Kong Housing Authority or insured by HKMC Insurance Limited.

28. Class XIC Real Estate Exposures other than Regulatory Real Estate Exposures

- (a) Items *11g* and *11h* are for reporting real estate exposures that are neither regulatory real estate exposures nor ADC exposures. “Other obligors” referred to in item *11g(iii)* are obligors other than individual and ***small business***. Column A6 of item *11g(iii)* is for reporting the weighted average of the risk-weights of the exposures reported in that item.
- (b) Real estate exposures (other than ADC exposures) secured by residential properties outside Hong Kong that are risk-weighted in accordance with section 65E of the BCR, where the exposures are not regulatory real estate exposures under the capital adequacy standards of the jurisdictions concerned, should be reported in item *11i*.

29. Class XID Land Acquisition, Development and Construction Exposures

- (a) Items *11j* and *11k* are for reporting ADC exposures that are risk-weighted in accordance with section 65F(1) and (2) of the BCR.
- (b) Item *11l* is for reporting ADC exposures in respect of residential properties outside Hong Kong that are risk-weighted in accordance with section 65F(3) of the BCR.

30. Class XIIA Equity Exposures

This exposure class is for reporting equity exposures that do not fall within Class XIIB (Significant Capital Investments in Commercial Entities) and Class XIIC (Insignificant and Significant LAC Investments).

31. Class XIIC Insignificant and Significant LAC Investments

- (a) Items *12g(i)* and *12g(iii)* – ***Significant LAC investments***

Items *12g(i)* and *12g(iii)* are intended for reporting instruments that can be excluded from the calculation of the applicable amount mentioned in section 47(1)(d) and section 48(1)(d) of the BCR (e.g. capital instruments mentioned in section 47(2)(a) and section 48(2)(a) of the BCR, and underwriting positions mentioned in section 1(4)(c) of Schedule 4G to the BCR), where the risk-weight applicable to the instruments is not 250%.

- (b) Item *12h* – Holdings of non-capital LAC liabilities

This item is for reporting holdings that fall within section 65I(3) of the BCR.

- (c) Apart from the holdings that are risk-weighted in accordance with section 65I of the BCR, CIS exposures (or any part of the exposures) to which section 70A(3) of the BCR applies must also be reported under this exposure class.

32. Class XIII Cash and Gold

(a) Items 13c to 13e - Gold bullion

- (i) Gold bullion held in safe custody for other entities or customers, which does not expose the reporting AI to any credit risk, is not required to be included in this Form.
- (ii) Gold bullion held on an unallocated basis by a third party for the reporting AI backed by gold liabilities should be reported in item 13d. Column A6 of item 13d is for reporting the weighted average of the risk-weights of the exposures reported in that item.
- (iii) Gold bullion held not backed by gold liabilities (i.e. all other holdings of gold bullion not included in items 13c and 13d) should be reported in item 13e.

(b) Items 13f to 13h - Exposures collateralized by cash collateral

- (i) These items capture exposures collateralized by the following assets (collectively referred to as “cash collateral”) where the CRM effect of the cash collateral is taken into account by using the simple approach—
 - (A) cash on deposit with the reporting AI; or
 - (B) certificates of deposit, or comparable instruments, issued by the reporting AI.
- (ii) The reporting AI should report the credit protection covered portion of the exposures in—
 - (A) item 13f—
 - if the exposures are default risk exposures arising from repo-style transactions that do not fall within section 82(3) of the BCR; or
 - if the exposures are not default risk exposures and there is **currency mismatch** between the cash collateral and the exposures (i.e. section 82(5) of the BCR does not apply);
 - (B) item 13g if the exposures are default risk exposures arising from repo-style transactions that fall within section 82(3)(b) of the BCR; or
 - (C) item 13h—
 - if the exposures are default risk exposures arising from repo-style transactions that fall within section 82(3)(a) of the BCR; or
 - if the exposures are not default risk exposures and there is no currency mismatch between the cash collateral and the exposures (i.e. section 82(5) of the BCR applies).

- (iii) However, when the cash collateral is held at a third-party bank in a non-custodial arrangement and unconditionally and irrevocably pledged or assigned to the reporting AI, the credit protection covered portion concerned must be reported as an exposure to that third-party bank under **Class V** and therefore must not be reported in **items 13f to 13h**.

33. Class XIV Exposures to Items in the Process of Clearing or Settlement

- (a) **Item 14c** refers to the amount of cheques, drafts and other items drawn on other banks that are payable to the account of the reporting AI immediately upon presentation and in the process of collection, and includes—
- (i) cheques and drafts against which the AI has paid to its customers (i.e. by purchasing or discounting the cheques or drafts presented by the customers) and in respect of which it now seeks payment from the drawee banks;
- but excludes—
- (ii) import and export trade bills held by the AI that are in the process of collection (they should be risk-weighted and reported as exposures to the counterparties concerned);
 - (iii) unsettled clearing items that are being processed through any interbank clearing system in Hong Kong **(which should be reported in item 14a)**; and
 - (iv) receivables arising from transactions in securities (other than repo-style transactions), and transactions in foreign exchange and commodities, that are not yet due for settlement **(which should be reported in item 14b)**.
- (b) **Item 14d** captures any transaction in securities (other than repo-style transaction), or any transaction in foreign exchange or commodities, that is entered into on a ***delivery-versus-payment (DvP) basis***² where payment / delivery has not yet taken place after the settlement date.
- (c) **Item 14e** captures any transaction in securities (other than repo-style transaction), or any transaction in foreign exchange or commodities, that is entered into on a non-DvP basis where payment / delivery from the counterparty concerned has not yet taken place after the settlement date. The amount of the payment made or the current market value of the thing delivered by the reporting AI, plus any ***positive current exposure*** associated with the transaction, **should be reported as an exposure in item 14e(i) or (ii), as the case requires**. The amount reported in **item 14e(i)** should be risk-weighted as an exposure to the counterparty to the transaction.

34. Class XV Other Exposures which are not Defaulted Exposures

Included in this exposure class are exposures—

- (a) that are subject to credit risk capital requirements; and
- (b) that have not been included in **Classes I to XIV, XVI and XVII** in this Form.

² DvP transactions include payment-versus-payment (PvP) transactions.

<u>Item no.</u>	<u>Nature of item</u>
15a.	<u>Premises, plant and equipment, other fixed assets for own use, and other interest in land</u> Included are— (a) investments in premises, plant and equipment and all other fixed assets of the reporting AI which are held for own use; (b) a right-of-use asset recognized by the reporting AI as a lessee in accordance with the prevailing accounting standards issued by Hong Kong Institute of Certified Public Accountants where the asset leased is a tangible asset; and (c) other interests in land which are neither occupied by the reporting AI nor used in the operation of the AI's business.
15b.	<u>Multiple-name credit-linked notes / sold credit protection to basket of exposures</u> This item refers to— (a) multiple-name CLNs (e.g. first-to-default CLNs) for which the applicable risk-weights are determined according to section 68(3) of the BCR (also see paragraph 14(c) above); and (b) sold credit protection to a basket of reference obligations, where the protection is in the form of total return swap or credit default swap booked in the reporting AI's banking book and the risk-weight applicable to the protection is determined according to section 68B(1), (2), (3) or (4) of the BCR.
15c.	<u>First loss portion of credit protection</u> This item refers to the portion of an exposure that is below the materiality threshold mentioned in section 101(9) of the BCR.
15d.	<u>Exposures subject to risk-weights specified by the MA</u> This item is for exposures whose risk-weights are specified by the MA under section 54C(5) of the BCR.

15e.

Other exposures not elsewhere reported

- (a) This item refers to other investments or exposures which are subject to credit risk capital requirements and have not been reported in Classes I to XIV, items 15a to 15d and Classes XVI and XVII.
- (b) This item also includes the credit protection covered portions of the following exposures:
- exposures secured by recognized collateral, where the risk-weights applicable to the collateral are determined under Part 7 of the BCR and the CRM effect of the collateral is taken into account by using the simple approach; and
 - exposures covered by recognized credit derivative contracts eligible for a risk-weight of 2% or 4% under section 100(7) of the BCR (the credit protection covered portions should be reported as a separate item from the credit protection covered portions mentioned in the first bullet and other exposures reported in this item). To avoid doubt, if the recognized credit derivative contracts concerned fall within section 226BI(b) or 226I(b) of the BCR, the default risk exposures in respect of the contracts are regarded as zero for the purposes of Form MA(BS)3(IIIe).

35. Class XVI Defaulted Exposures

Included in this exposure class are defaulted exposures and their credit protection covered portions (if any). In other words, the credit protection covered portions of defaulted exposures should not be reported in the exposure class applicable to the credit protection (see also paragraphs 37, 39 and 40).

36. Class XVII Collective Investment Scheme Exposures (CIS exposures)

Use of a single approach

- (a) If a **CIS exposure** is risk-weighted only by using one approach, the exposure should be reported in—
- (i) any of items 17a(i) to 17a(vi) if either the **look-through approach** (LTA) or the **third-party approach** is used;
- (ii) any of items 17b(i) to 17b(vi) if the **mandate-based approach** (MBA) is used; or
- (iii) item 17c(i) if the **fall-back approach** (FBA) is used.
- (b) “Risk-weight” referred to in items 17a(i) to 17c(i) means the effective risk-weight applicable to a CIS exposure determined under Division 2 of Part 6B of the BCR.

Use of a combination of approaches

- (c) If a CIS exposure to a collective investment scheme (CIS) is risk-weighted by using more than one approach, e.g. LTA for on-balance sheet assets held by the CIS and FBA for off-balance sheet exposures incurred by the CIS, the exposure should be reported in any of **items 17d(i) to 17d(vi)**.
- (d) “Risk-weight” referred to in **items 17d(i) to 17d(vi)** is the effective risk-weight (RW) of a CIS exposure calculated as follows:

$$RW = \frac{\sum_a RWA_a}{TA} \cdot L$$

where—

- (i) RWA_a is the RWA of that portion of the underlying exposures of a CIS which is determined by using approach a ;
- (ii) TA is the total assets of the CIS; and
- (iii) L is the leverage of the CIS calculated in accordance with section 226ZJ(2)(b) of the BCR.

(See Part IIIa and IIIb – Annex B for numerical examples)

B.4 Reporting of On-balance Sheet Exposures – Columns A1 and A2 in Division A

37. If an on-balance sheet exposure is not covered by any recognized CRM, the whole **principal amount** (after deduction of **specific provisions**³) of the exposure should be reported in both columns A1 and A2 of the row for the exposure class and risk-weight applicable to the exposure. **If the exposure is a defaulted exposure, the whole principal amount (after deduction of specific provisions) should be reported in columns A1 and A2 of item 16a or 16b, as the case requires, under Class XVI.**
38. If an on-balance sheet exposure is covered fully or partially by recognized CRM—
- (a) the whole principal amount (after deduction of specific provisions) of the exposure should be reported in column A1 of the row for the exposure class and risk-weight applicable to the exposure; and
- (b) column A2 should be filled in as set out in **paragraphs 39 and 40** below.

³ For the purposes of the STC approach, “specific provisions”, as defined in section 51(1) of the BCR, includes partial write-offs.

39. CRM treatment by substitution of risk-weights (applicable to collateral under the simple approach⁴, guarantees and credit derivative contracts)

(a) The amount reported in column A1 should be divided into the credit protection covered portion(s) and the ***credit protection uncovered portion***.

(b) Each credit protection covered portion of the exposure should be reported in column A2 as follows—

(i) if the exposure is not a **defaulted** exposure, it should be reported in the row for the exposure class and risk-weight applicable to the credit protection concerned. That is—

(A) in the case of collateral, the credit protection covered portion should be allocated the risk-weight of the collateral (the risk-weight is subject to a floor of 20% unless otherwise stated in the BCR); or

(B) in the case of a guarantee or credit derivative contract, the credit protection covered portion should be allocated the ***attributed risk-weight*** of the ***credit protection provider*** (or the risk-weight of 2% or 4% if the credit derivative contract falls within **section 100(7)** of the BCR); or

(ii) if the exposure is a **defaulted** exposure, it should be reported in **item 16c(i), (ii), (iii) or (iv) of Class XVI (Defaulted Exposures)**, depending on the range within which the risk-weight applicable to the credit protection falls.

(c) The credit protection uncovered portion of the exposure, if any, should be reported in column A2 of the row for the exposure class and risk-weight applicable to the exposure.

(d) In the case of—

(i) mortgage loans granted for the purchase of flats under the Home Ownership Scheme, Private Sector Participation Scheme, Tenants Purchase Scheme and other similar schemes which are covered by guarantees issued by Hong Kong Housing Authority;

(ii) reverse mortgage loans granted under the Reverse Mortgage Programme of HKMC Insurance Limited; and

(iii) mortgage loans granted under Mortgage Insurance Programme of HKMC Insurance Limited,

the credit protection uncovered portion, if any, of the mortgage loans should be reported in **column A2 under Class XIA**. The credit protection covered portion of the mortgage loans in relation to the guarantee provided by Hong Kong Housing Authority or the insurance provided by HKMC Insurance Limited should be reported in Class II and column A2 of the **item for the risk-weight applicable to domestic**

⁴ For **defaulted** exposures secured by collateral, the reporting AI should only use the simple approach to CRM treatment.

public sector entities if the guarantee or insurance concerned meets all the criteria set out in section 98 of the BCR.

40. CRM treatment by reduction of principal amount of exposures (applicable to collateral under the **comprehensive approach** and on-balance sheet netting)

The net credit exposure calculated under section 87 or 94 of the BCR, as the case requires should be reported in the exposure class to which the exposure belongs and in column A2 of the row for the risk-weight applicable to the exposure. To avoid doubt, if **the net credit exposure calculated under section 94 is a defaulted exposure**, the AI should report the exposure in column A2 of **item 16a or 16b** in **Class XVI**, as the case requires.

B.5 Reporting of Off-balance Sheet Exposures other than Default Risk Exposures – Columns A3 and A4 in Division A

41. Off-balance sheet exposures (except default risk exposures and credit exposures arising from unsegregated collateral posted)

(a) If an off-balance sheet exposure is not covered by any recognized CRM, the whole principal amount (net of specific provisions if applicable) of the exposure and its **credit equivalent amount** (CEA) should be reported respectively in column A3 and column A4 of the row for the exposure class and risk-weight applicable to the exposure. **If the exposure is a defaulted exposure, the whole principal amount (after deduction of specific provisions) should be reported in columns A3 and A4 of item 16a or 16b, as the case requires, under Class XVI.**

(b) If an off-balance sheet exposure is covered fully or partially by recognized CRM—

- (i) the whole principal amount (net of specific provisions if applicable) of the exposure should be reported in column A3 of the row for the exposure class and risk-weight applicable to the exposure; and
- (ii) the CEA after CRM should be reported in column A4 as set out in paragraphs (c) or (d) below.

(c) CRM treatment by substitution of risk-weights

- (i) The amount reported in column A3 should be divided into the credit protection covered and uncovered portions and each of these portions should be multiplied by the **credit conversion factor** (CCF) applicable to the exposure.
- (ii) The CEA of each credit protection covered portion should be reported in column A4 in the same manner as set out in **paragraph 39(b)(i) and (ii)**.
- (iii) The CEA of the credit protection uncovered portion should be reported in column A4 of the row for the exposure class and risk-weight applicable to the exposure.

(d) Collateral under comprehensive approach

The net credit exposure calculated under section 88 of the BCR should be reported in the exposure class to which the off-balance sheet exposure belongs and in column A4 of the row for the risk-weight applicable to the off-balance sheet exposure.

42. Off-balance sheet exposures arising from unsegregated collateral posted by reporting AI

In the case of off-balance sheet exposures to which section 71(2) of the BCR applies—

- (a) the whole principal amount (without deduction of any specific provisions) of the collateral should be reported in column A3; and
- (b) the CEA of the exposure (net of specific provision, if applicable) (see **section 71(2) and (3)** of the BCR) should be reported in column A4.

Both the principal amount and the CEA should be reported in the row for the exposure class and risk-weight applicable to the person holding the collateral.

B.6 Reporting of Off-balance Sheet Exposures that are Default Risk Exposures – Columns A3 and A5 in Division A

43. For any derivative contracts or SFTs entered into by the reporting AI with a counterparty, the AI should report the amounts listed below in column A3 of the row for the exposure class and risk-weight applicable to the **default risk exposures to the** counterparty:

- (a) in the case of derivative contracts—the gross sum of the stated notional amounts of the derivative contracts entered into with the counterparty;
- (b) in the case of SFTs—
 - (i) the principal amounts of any securities sold or lent to the counterparty by the AI under the SFTs;
 - (ii) the principal amounts of any money paid or lent to the counterparty by the AI under the SFTs; and
 - (iii) the principal amounts of any securities or money provided to the counterparty as collateral by the AI under the SFTs.

44. For any default risk exposure that is calculated by using the ***SA-CCR approach*** or the ***IMM(CCR) approach***—

- (a) if the exposure is not covered by any recognized CRM⁵, the ***outstanding default risk exposure*** of the ***netting set*** (or the default risk exposure if the netting set contains

⁵ In the case of SFTs, “recognized CRM” refers to recognized guarantees and recognized credit derivative contracts as securities or money received by the AI under the SFTs have already been taken into account in the calculations under the IMM(CCR) approach, they should not be taken into account again under Part 4 of the BCR. In the case of derivative contracts, “recognized CRM” refers to recognized collateral whose credit risk mitigation effect can be taken into account under section 78(1A)(b) of the BCR, recognized guarantees and recognized credit derivative contracts.

SFTs only), net of specific provisions if applicable, should be reported in column A5 of the row for the exposure class and risk-weight applicable to the **exposure**;

(b) if—

- (i) the exposure is covered fully or partially by recognized collateral and falls within section 78(1A)(b) of the BCR;
- (ii) the exposure is covered fully or partially by a recognized guarantee or recognized credit derivative contract; or
- (iii) the exposure falls within both subparagraphs (i) and (ii),

the reporting arrangements for column A5 are set out in paragraphs (c) and (d) below.

(c) CRM treatment by substitution of risk-weights

- (i) the outstanding default risk exposure or default risk exposure, as the case may be, net of specific provisions if applicable, should be divided into the credit protection covered and uncovered portions;
- (ii) each credit protection covered portion should be reported in column A5 of the row for the exposure class and risk-weight applicable to the credit protection concerned; and
- (iii) the credit protection uncovered portion should be reported in column A5 of the row for the exposure class and risk-weight applicable to the **exposure**.

(d) Collateral under comprehensive approach

The net credit exposure calculated under section 89 of the BCR should be reported in the exposure class to which the counterparty concerned belongs and in column A5 of the row for the risk-weight applicable to the **exposure**.

45. For any default risk exposure in respect of SFTs calculated under Division 2B of Part 6A of the BCR—

(a) if the exposure is not covered by any recognized CRM⁶—

- (i) in the case where the exposure is calculated under section 226MJ of the BCR, the exposure and the recognized collateral received by the reporting AI under the SFT concerned should be reported in column A5 in the same manner as set out in **paragraph 44(c) or (d)**;
- (ii) in the case where the exposure is calculated under section 226MK of the BCR, the exposure, net of specific provisions if applicable, should be reported in column A5 of the row for the exposure class and risk-weight applicable to the **exposure**;

⁶ In the case of SFTs, “recognized CRM” refers to recognized guarantees and recognized credit derivative contracts.

(b) if the exposure is covered fully or partially by recognized CRM⁷—

- (i) in the case where the exposure is calculated under section 226MJ of the BCR and the recognized collateral received under the SFT concerned is taken into account by using the simple approach, the credit protection uncovered portion, and the credit protection covered portions in respect of the recognized collateral and recognized CRM, should be reported in column A5 in the same manner as set out in paragraph 44(c);
- (ii) in the case where the exposure is calculated under section 226MJ of the BCR and the recognized collateral received under the SFT concerned is taken into account by using the comprehensive approach—
 - (A) the net credit exposure calculated under section 88 of the BCR should be reported in column A5 in the same manner as set out in paragraph 44(d); and
 - (B) the credit protection covered portion in respect of the recognized CRM should be reported in column A5 in the same manner as set out in paragraph 44(c);
- (iii) in the case where the exposure is calculated under section 226MK of the BCR, the credit protection uncovered portion, and the credit protection covered portion in respect of the recognized CRM, should be reported in column A5 in the same manner as set out in paragraph 44(c).

46. If the reporting AI issues a CLN to cover a default risk exposure, the amount of the proceeds received from the issuance of the CLN should not be included in the calculation of the amount of the default risk exposure under Division 1A, 2 or 2B of Part 6A of the BCR. The AI may only take into account the CRM effect of the proceeds in the calculation of the RWA of the default risk exposure in accordance with section 101(8) of the BCR.

47. Part IIIb – Annex A contains a number of examples to illustrate the capital treatment and reporting arrangement of exposures covered by recognized CRM.

B.7 Reporting of Risk-weighted Amount – Column A7 in Division A

48. For all items in Division A, the RWA reported in column A7 is calculated by multiplying the sum of the amounts reported in columns A2, A4 and A5 by the risk-weight in column A6.

Section C: Reporting arrangements for Division B of Part IIIb

C.1 General Instructions

49. Unless otherwise stated in these completion instructions, the reporting AI is not required to report in Parts II, III and IV of Division B any derivative contract or SFT that is outside

⁷ See footnote 6.

the scope of Divisions 1A, 2 and 2B of Part 6A of the BCR (please refer to the “Q&As on exposures to counterparty credit risk and central counterparties” for more information). Default risk exposures reported in columns B16, B25 and B35 should not be reduced by any *CVA loss* or specific provisions made. Outstanding default risk exposures in respect of derivative contracts and any specific provisions made for default risk exposures should be reported in column A5 in Division A of this Form.

50. Breakdown of CEAs and default risk exposures by exposure class in Division B should be consistent with the exposures classes into which the off-balance sheet exposures concerned are classified for the purposes of Division A.

C.2 Part I of Division B - Off-balance Sheet Exposures other than Default Risk Exposures

51. The reporting AI should classify each of its off-balance sheet exposures other than default risk exposures into the appropriate standard items listed in paragraph 52 and report the exposures in Part I of Division B of this Form.
52. CCFs for items 1 to 11 are set out in Schedule 6 to the BCR.

<u>Item no.</u>	<u>Nature of item</u>
-----------------	-----------------------

1.	Direct credit substitutes
----	---------------------------

2.	<i>Transaction-related contingencies</i>
----	---

3.	Trade-related contingencies
----	-----------------------------

4.	Asset sales with recourse
----	---------------------------

5.	Sale and repurchase agreements (excluding repo-style transactions)
----	---

6.	Forward asset purchases
-----------	-------------------------

This item also captures off-balance sheet exposures arising from the reporting AI's commitments to subscribe to CISs' future capital calls.

To avoid doubt, forward start repo-style transactions should be reported in **item 10b or c** instead of this item.

7.	Partly paid-up shares and securities
-----------	--------------------------------------

8. Forward forward deposits placed

This refers to a commitment of the reporting AI to place a forward forward deposit.

If the reporting AI has contracted to receive a forward forward deposit, failure to deliver by the counterparty will result in an unanticipated change in the AI's interest rate exposure and may involve a replacement cost. Such exposure should therefore be regarded as default risk exposures arising from *interest rate contracts* and reported in Part II or IV of Division B, as the case requires.

9. Note issuance and revolving underwriting facilities

10a. to c. Other commitments

Included is the undrawn portion of any arrangement that falls within the definition of "commitment" defined in section 2 of Schedule 6 to the BCR and does not fall within any of items 1 to 9.

A commitment is regarded as being created no later than the acceptance in writing by the customer of the facility offered.

In the case of an off-balance sheet exposure (exposure A) arising from a commitment the drawdown of which will give rise to another off-balance sheet exposure (exposure B) falling within any of items 1 to 9 and 11, the CCF applicable to exposure A should be the lower of—

- (a) the CCF applicable to exposure A according to Schedule 6 to the BCR; and
- (b) the CCF applicable to exposure B according to that Schedule.

10a. Exempt commitments

10b. Other commitments (CCF at 10%)

This item captures commitments (other than exempt commitments) that—

- (a) may be cancelled at any time unconditionally by the reporting AI concerned without prior notice; or
- (b) provide for automatic cancellation due to deterioration in the creditworthiness of the persons to whom the reporting AI has made the commitments.

10c. Other commitments (CCF at 40%)

This item captures commitments that do not fall within items 10a and 10b.

11a. to d. Off-balance sheet exposures not specified above

11a. This item captures off-balance sheet exposures that do not fall within items 1 to **10c** and that are subject to a CCF of 100%. Such exposures include, but not limited to—

- (a) off-balance sheet exposures to the credit risk of the underlying assets of cash-settled derivative contracts (e.g. equity forward contracts) booked in the reporting AI's banking book; and
- (b) credit exposures to persons holding unsegregated collateral posted by the reporting AI (other than collateral posted that is included in the default risk exposures reported in Part II, III or IV of Division B of this Form and Form MA(BS)3(IIIe)) (see section 71(2) of the BCR).

11b. to d. These items capture off-balance sheet exposures that do not fall within items 1 to **10c** and that are subject to a CCF specified in Part 2 of Schedule 1 to the BCR. For other off-balance sheet exposures not mentioned above, the reporting AI should consult the HKMA on the reporting arrangements.

53. The reporting AI should report each of its off-balance sheet exposures as follows:

- (a) report in column B2 the principal amount (net of specific provisions if applicable) of the exposure;
- (b) report in column B3 the CEA of the exposure (i.e. the product of the amount reported in column B2 and the applicable CCF specified in column B1); and
- (c) report the CEA of the exposure in one of columns B4 to B12⁸ if the exposure falls within any one of the following exposure classes—
 - (i) Class I Sovereign Exposures;
 - (ii) Class II Public Sector Entity Exposures;
 - (iii) Class III Multilateral Development Bank (MDB) Exposures⁹;
 - (iv) Class IV **Unspecified Multilateral Body Exposures**⁹;
 - (v) **Class V Bank Exposures**;
 - (vi) **Class VII Qualifying Non-bank Financial Institution (QNBFI) Exposures**;
 - (vii) **Class VIII Corporate Exposures**;
 - (viii) **Class IX Retail Exposures**;
 - (ix) **Class XIA Regulatory Residential Real Estate Exposures**¹⁰;

⁸ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in column B3 would be greater than or equal to the sum of the total amounts reported in columns B4 to B12.

⁹ To be reported in column B6.

¹⁰ To be reported in column B11.

- (x) Class XIB Regulatory Commercial Real Estate (CRE) Exposures¹⁰;
- (xi) Class XIC Real Estate Exposures other than Regulatory Real Estate Exposures¹⁰;
- (xii) Class XID Land Acquisition, Development and Construction Exposures¹⁰; and
- (xiii) Class XVII Collective Investment Scheme Exposures (CIS exposures).

**C.3 Part II of Division B - Default Risk Exposures in respect of Derivative Contracts¹¹
(SA-CCR Approach)**

54. If the reporting AI uses the SA-CCR approach to calculate default risk exposures, it should report the exposures so calculated in the appropriate items in Part II of Division B (please see Part IIIa and IIIb – Annex A for numerical examples).

Item no. Nature of item

12. Unmargined contracts not covered by recognized netting

This item captures derivative contracts—

- (a) that fall within the definition of *unmargined contract* in section 226BA of the BCR; and
- (b) that are not covered by recognized netting.

The following contracts should also be reported in this item—

- (a) contracts that fall within section 226BH(2) or (4) of the BCR; and
- (b) contracts that have been removed from the netting sets concerned under section 226BH(3)(b) or (5) of the BCR.

13. Margined contracts not covered by recognized netting

This item captures derivative contracts—

- (a) that fall within the definition of *margined contract* in section 226BA of the BCR; and
- (b) that are not covered by recognized netting.

14. Contracts covered by recognized netting

This item captures derivative contracts (whether they are margined contracts or not) covered by recognized netting.

¹¹ Derivative contracts include long settlement transactions that fall within paragraph (c) or (d) of the definition of “derivative contract” in section 2(1) of the BCR. For example, a long settlement transaction that is a FX spot transaction must be reported as an exchange rate contract.

15. Out of the amounts reported in items **12, 13 and 14**, the amounts for offsetting or CCP-related transactions with clearing members or clearing clients

This item is for reporting the amounts captured under items **12 to 14** that are related to *offsetting transactions* or *CCP-related transactions* entered into by the reporting AI with *clearing members* or *clearing clients* (see Part IIIe – Annex A and paragraph 5 of the completion instructions for Form MA(BS)3(IIIe) for more information on exposures related to centrally cleared transactions that should be reported in this Form).

55. For all items in Part II of Division B—

- (a) if a netting set contains a credit derivative contract that falls within section 226BI of the BCR and the reporting AI has—
 - (i) treated the default risk exposure of such credit derivative contract as zero; and
 - (ii) removed such credit derivative contract from the netting set (i.e. the default risk exposure of the netting set is calculated as if the credit derivative contract did not exist),

the reporting AI is not required to report such credit derivative contract in Part II of Division B¹²;

- (b) the amount reported in column B13 is the gross sum of the stated notional amounts of the relevant derivative contracts.

56. For item **12**—

- (a) report in column B14 the replacement cost of a derivative contract calculated in accordance with Division 1A of Part 6A of the BCR by using the formula applicable to the contract. In the case of a sold option whose default risk exposure is set to zero under 226BH(2) or (3) of the BCR, the replacement cost of the option may be reported as zero;
- (b) report in column B15 the potential future exposure of the derivative contract calculated in accordance with Division 1A of Part 6A of the BCR by using the formulas applicable to the asset class into which the contract falls. In the case of a sold option whose default risk exposure is set to zero under section 226BH(2) or (3) of the BCR, the potential future exposure of the option may be reported as zero;
- (c) report in column B16 the default risk exposure of the derivative contract (i.e. the sum of the amounts reported in columns B14 and B15 multiplied by 1.4); and

¹² This is to avoid double counting as the notional amount of the credit derivative contracts is somehow reflected in the amount reported in Division A (e.g. credit protection covered portion) or Part I of Division B (e.g. direct credit substitute).

- (d) report the default risk exposure of the derivative contract in one of columns B17 to B23¹³ if—
- (i) the counterparty to the contract is a sovereign, PSE, MDB, **unspecified multilateral body**, bank, **QNBFI** or corporate; or
 - (ii) the default risk exposure **falls within Class IX Retail Exposures**.
57. The reporting arrangements mentioned in **paragraph 56** also apply to item **13**. Also—
- (a) if the default risk exposure calculated for a margined contract on an unmargined basis is regarded as the default risk exposure of the contract, the default risk exposure calculated on an unmargined basis should be reported in column B16 (see section 226BH(1) of the BCR);
 - (b) if more than one derivative contract is covered by a single **variation margin agreement**—
 - (i) the stated notional amount of each of the derivative contracts should be reported in column B13 of item **13a, 13b, 13c, 13d or 13e**, as the case requires;
 - (ii) there is no need to report the replacement cost, potential future exposure and default risk exposure calculated for these contracts by type of contract. The amounts calculated under sections 226BE(3), 226BS and 226BE(2) of the BCR should be reported in columns B14, B15 and B16 of item **13f** respectively.
58. For item **14**, the replacement cost, potential future exposure and default risk exposure of a netting set or a group of netting sets, as the case may be, should be reported in the row “SUBTOTAL” of columns B14, B15 and B16 respectively. The reporting arrangements mentioned in paragraphs **56(c)** and **56(d)** and paragraph **57(a)** apply to the netting set or the group of netting sets as they apply to a single derivative contract.

C.4 Part III of Division B - Default Risk Exposures in respect of SFTs (Non-IMM(CCR) Approach)

59. If the reporting AI calculates default risk exposures in respect of SFTs under Division 2B of Part 6A of the BCR, it should report the exposures so calculated in the appropriate items in Part III of Division B as follows:
- (a) The principal amount of the securities sold or lent, or the money paid or lent, or the securities or money provided as collateral, by the reporting AI under an SFT should be reported in column B24 of item **16a or 16b**, as the case requires.
 - (b) Under item **16a**, if any one of section 226MJ(1)(a), (b)(i) **or** (b)(ii) is applicable to the reporting AI or its SFT, the AI’s SFT should be reported as follows—

¹³ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in column B16 would be greater than or equal to the sum of the total amounts reported in columns B17 to B23.

- (i) report in column B25 the default risk exposure of the SFT calculated under section 226MJ of the BCR; and
 - (ii) report the default risk exposure in one of columns B26 to B31¹⁴ if the counterparty to the SFT is a sovereign, PSE, MDB, unspecified multilateral body, bank, QNBFI or corporate.
- (c) Under item 16b, **nettable**¹⁵ SFTs with a counterparty should be reported as follows—
- (i) report in column B25 the default risk exposure of the nettable SFTs calculated under section 226MK of the BCR; and
 - (ii) report the default risk exposure in one of columns B26 to B31¹⁶ if the counterparty to the nettable SFTs is a sovereign, PSE, MDB, unspecified multilateral body, bank, QNBFI or corporate.
- (d) Item 16c is for reporting the amounts captured under items 16a and 16b that are related to offsetting transactions or CCP-related transactions entered into by the reporting AI with clearing members or clearing clients (see Part IIIe – Annex A and paragraph 5 of the completion instructions for Form MA(BS)3(IIIe)) for more information on exposures related to centrally cleared transactions that should be reported in this Form).

C.5 **Part IV of Division B - Default Risk Exposures (IMM(CCR) Approach)**

60. If the reporting AI uses the IMM(CCR) approach to calculate default risk exposures, it should report the exposures so calculated in the appropriate items in Part IV of Division B.

<u>Item no.</u>	<u>Nature of item</u>
-----------------	-----------------------

<u>17.</u>	<u>Portfolio-level risk-weighted amount based on current market data</u>
------------	--

The portfolio-level RWA calculated under section 226D(1)(a) and (2)(a) of the BCR should be reported in this item.

<u>18.</u>	<u>Portfolio-level risk-weighted amount based on stress calibration</u>
------------	---

The portfolio-level RWA calculated under section 226D(1)(b) and (2)(b) of the BCR should be reported in this item.

Only the higher of item 17 and item 18 will be used in the calculation of the total RWA for credit risk under the STC approach.

¹⁴ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in column B25 would be greater than or equal to the sum of the total amounts reported in columns B26 to B31.

¹⁵ For the purposes of this Form, an SFT is regarded as not nettable if the SFT is covered by recognized netting but the reporting AI uses the simple approach to take into account the CRM effect of the recognized collateral received under the SFT.

¹⁶ See footnote 14.

19. to 22. Items **19 to 22** capture the breakdown of the default risk exposures included in the portfolio-level RWA that will be used in the capital adequacy ratio calculation. In other words, if the portfolio-level RWA calculated using current market data is larger, the default risk exposures reported in items **19 to 22** should be those used in calculating the RWA reported in item **17**.

19. Netting sets (not subject to recognized netting)

This item captures transactions—

- (a) that are not subject to recognized netting; or
- (b) that are required to be treated as a separate netting set under section 226J(1) of the BCR.

If the reporting AI's **IMM(CCR) approval** covers one or more than one of the following categories of transactions:

- (a) derivative contracts (excluding **long settlement transactions** (LSTs));
- (b) SFTs (excluding LSTs); and
- (c) LSTs,

the AI should report each of its transactions in item **19a, 19b or 19c** based on the category within which the transaction falls.

20. Netting sets (subject to valid bilateral netting agreements)

This item captures transactions—

- (a) that are subject to **valid bilateral netting agreements**; and
- (b) that are not required to be treated as a separate netting set under section 226J(1) of the BCR.

Derivative contracts and SFTs covered by the reporting AI's IMM(CCR) approval must be reported in items **20a and 20b** respectively. The amounts reported in these two items will include derivative contracts and SFTs that are LSTs unless these LSTs are not covered by the IMM(CCR) approval.

If the reporting AI's IMM(CCR) approval only covers LSTs, the AI should report the LSTs in item **20c**.

21. Netting sets (subject to valid cross-product netting agreements)

This item captures transactions—

- (a) that are subject to **valid cross-product netting agreements**; and
- (b) that are not required to be treated as a separate netting set under section 226J(1) of the BCR.

LSTs are included unless the IMM(CCR) approval of the reporting AI does not cover LSTs.

22. Out of the amounts reported in items 19, 20 and 21, the amounts for offsetting or CCP-related transactions with clearing members or clearing clients

This item is for reporting the amounts captured under items 19 to 21 that are related to offsetting transactions or CCP-related transactions entered into by the reporting AI with clearing members or clearing clients (see Part IIIe – Annex A and paragraph 5 of the completion instructions for Form MA(BS)3(IIIe) for more information on exposures related to centrally cleared transactions that should be reported in this Form).

61. The reporting AI should report the default risk exposures calculated under the IMM(CCR) approach in Part IV of Division B of this Form as follows:

- (a) report in column B33 of items 19a, 19c, 20a, 20c, 21a and 22a the gross sum of the stated notional amounts of the derivative contracts and LSTs concerned;
- (b) report in column B34 of items 19b, 19c, 20b, 20c, 21b, 21c and 22a the principal amounts of the securities sold, lent or delivered, or the money paid, by the AI to the counterparties under the SFTs and LSTs concerned;
- (c) report in column B35 of items 19a to 20c, 21 and 22a the default risk exposures of the netting sets concerned calculated under section 226E of the BCR. In the case of item 19, the netting set only contains one transaction; and
- (d) report the default risk exposure of each of the netting sets reported in column B35 in one of columns B36 to B41¹⁷ if the counterparty to the netting set is a sovereign, PSE, MDB, unspecified multilateral body, bank, QNBFI or corporate.

62. If a netting set contains a credit derivative contract that falls within section 226I of the BCR and the reporting AI has—

- (a) treated the default risk exposure of such credit derivative contract as zero; and
- (b) removed such credit derivative contract from the netting set (i.e. the default risk exposure of the netting set is calculated as if the credit derivative contract did not exist),

the reporting AI is not required to report such credit derivative contract in Part IV of Division B of this Form¹⁸.

¹⁷ Only breakdown by major exposure classes is required. As a result, for each row, the total amount reported in column B35 would be greater than or equal to the sum of the total amounts reported in columns B36 to B41.

¹⁸ See footnote 12.

C.6 Multiple Credit Risk Mitigation

63. If an exposure is covered by two or more forms of recognized CRM (e.g. with both collateral and guarantee partially covering the exposure), the treatments for the recognized CRM are set out in section 102(1) and (2) of the BCR. The calculation of the RWA of each portion will be done separately.
64. If an exposure is covered by credit protection provided by a single credit protection provider but the credit protection has different maturities, the treatment for the credit protection is set out in section 102(3) of the BCR. The RWA of each portion should be calculated separately.
65. Unless otherwise stated in the BCR (e.g. section 78(1C)), the reporting AI may determine, at its discretion, how recognized CRM that is shared by two or more on-balance sheet and/or off-balance sheet exposures are allocated to each of the exposures for the purpose of RWA calculation, as long as the AI's allocation is not inconsistent with the terms and conditions of the relevant legal documentation.

C.7 Maturity Mismatches

66. If a credit protection in the form of collateral, guarantee, credit derivative contract or on-balance sheet netting has maturity mismatch referred to in section 103(1) of the BCR, a reporting AI should determine whether the credit protection can be taken into account in the RWA calculation (see section 103(2) of the BCR for details) and whether the value of the credit protection should be adjusted (see Formula 12 in section 103(1) of the BCR). Adjustment to the value of credit protection does not apply to collateral without a finite maturity (e.g. equities). The maturity of a credit protection should be determined in accordance with section 103(3) and (4) of the BCR.

Hong Kong Monetary Authority
March 2025

Examples of calculation of default risk exposure under the SA-CCR approach

- ♦ The counterparty of the derivative contracts in each of the cases below is an unrated corporate **that is not a small business** and the AI concerned has not made use of any recognized guarantee or recognized credit derivative contract to mitigate the default risk exposure to the corporate arising from these contracts.

Case 1: Unmargined contracts not covered by recognized netting

In this case, since the derivative contracts entered into by the AI with the corporate are not covered by recognized netting, each contract forms a single netting set. Also, neither the AI nor the counterparty has posted collateral for the contracts.

Netting set A

Contract	Type of contract	Base currency	Notional (HK\$'000)	Residual maturity (in year)	Pay	Receive	Market value (HK\$'000)
A1	Interest rate swap	HKD	10,000	0.25	Fixed	Floating	10

Netting set B

Contract	Type of contract	Base currency	Notional (HK\$'000)	Residual maturity (in year)	Pay	Receive	Market value (HK\$'000)
A2	Interest rate swap	HKD	10,000	5	Floating	Fixed	-25

Netting set C

Contract	Type of contract	Base currency	Notional (HK\$'000)	Residual maturity (in year)	Reference entity	ECAI issuer rating of reference entity	Position of the AI	Market value (HK\$'000)
A3	Credit default swap	HKD	10,000	2	Firm X	BBB	Protection seller	50

I. Calculation of default risk exposure

Step 1: Calculation of replacement cost (RC) at the level of netting set

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

$$RC_{\text{netting set A}} = \max(10 - 0; 0) = 10$$

$$RC_{\text{netting set B}} = \max(-25 - 0; 0) = 0$$

$$RC_{\text{netting set C}} = \max(50 - 0; 0) = 50$$

Step 2: Calculation of add-on at the level of netting set

Step 2.1: Calculation of contract-level adjusted notional amount (d_i)

Contract	Hedging Set	S_i	E_i	Notional amount (HK\$'000) (a)	Supervisory duration (SD_i) (b)	Adjusted notional amount (d_i) (HK\$'000) = (a) × (b)
A1	HKD	0	0.25	10,000	0.248	2,484
A2	HKD	0	5	10,000	4.424	44,240
A3	NA	0	2	10,000	1.903	19,033

The supervisory duration of contract i , which is subject to a floor of 10 business days, is calculated as follows:

$$SD_i = \frac{\exp(-0.05 * S_i) - \exp(-0.05 * E_i)}{0.05}$$

$$SD_{A1} = \frac{\exp(-0.05*0) - \exp(-0.05*0.25)}{0.05} = 0.248$$

$$SD_{A2} = \frac{\exp(-0.05*0) - \exp(-0.05*5)}{0.05} = 4.424$$

$$SD_{A3} = \frac{\exp(-0.05*0) - \exp(-0.05*2)}{0.05} = 1.903$$

Step 2.2: Calculation of effective notional amount (D_i) at the level of hedging set

For unmargined contract i not subject to recognized netting, the effective notional amount of a hedging set is equivalent to the effective notional amount of contract i and is given by the following formula:

$$D_i = \delta_i * d_i * MF_i^{(unmargined)}$$

where $MF_i^{(unmargined)}$ is the maturity factor applicable to contract i given by the following formula (M_i is subject to a floor of 10 business days):

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

$$MF_{A1}^{(unmargined)} = \sqrt{\frac{\min\{0.25; 1\}}{1}} = 0.5$$

$$MF_{A2}^{(unmargined)} = \sqrt{\frac{\min\{5; 1\}}{1}} = 1$$

$$MF_{A3}^{(unmargined)} = \sqrt{\frac{\min\{2; 1\}}{1}} = 1$$

Contract	Residual maturity (M_i)	Supervisory delta (δ_i) (a)	Adjusted notional amount (d_i) (HK\$'000) (b)	Maturity factor (MF_i) (c)	Effective notional amount (D_i) (HK\$'000) = (a) × (b) × (c)
A1	0.25	+1	2,484	0.5	1,242
A2	5	-1	44,240	1	-44,240
A3	2	-1	19,033	1	-19,033

Step 2.3: Calculation of add-on at the level of netting set

For an interest rate¹ or credit-related² derivative contract not covered by recognized netting, the add-on for the netting set concerned is calculated as follows:

$$AddOn = SF * |D_i|$$

Netting set	Contract	Absolute value of effective notional amount ($ D_i $) (HK\$'000) (a)	Supervisory factor (SF) (b)	Add-on (HK\$'000) = (a) × (b)
A	A1	1,242	0.5%	6.21
B	A2	44,240	0.5%	221.20
C	A3	19,033	0.54%	102.78

Step 3: Calculation of potential future exposure (PFE) and default risk exposure at the level of netting set

$$PFE = multiplier * AddOn$$

$$Default Risk Exposure = alpha * (RC + PFE)$$

¹ For a netting set that contains only one contract, if the contract is an interest rate contract, Formulas 23AS and 23AT in §226BU(2) of the BCR should result in the same effective notional amount for the contract. That is-

$$Effective\ Notional^{(IR)} = |D^{(MB)}|$$

where $D^{(MB)}$ is the effective notional amount for the maturity bucket in which the contract falls. However, since there is only one maturity bucket in the netting set, the actual calculation does not require allocation of the contract into a maturity bucket.

² For a netting set that contains only one contract, if the contract is a credit-related derivative contract, Formula 23AQ in §226BT(3) of the BCR will be reduced to –

$$AddOn^{(credit)} = [AddOn(Entity_k)^2]^{0.5} = AddOn(Entity_k) = SF_k^{(Credit)} * Effective\ Notional_k^{(Credit)}$$

Netting set	RC (HK\$'000) (a)	Multiplier (b)	Add-on (HK\$'000) (c)	PFE (HK\$'000) (d) = (b) × (c)	Default risk exposure (HK\$'000) =1.4*((a) + (d))
A	10	1	6.21	6.21	22.69
B	0	0.945	221.20	209.03	292.65
C	50	1	102.78	102.78	213.89
Total					529.23

The multiplier applied to each of the above netting sets is calculated as follows:

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

For both netting sets A and C, since the current market value of the netting set is positive and no net collateral is held by the AI, the multiplier is equal to 1.

For netting set B–

$$multiplier_{netting \ set \ B} = \min \left\{ 1; 5\% + (1 - 5\%) * \exp \left(\frac{-25}{2 * (1 - 5\%) * 221.2} \right) \right\} = 0.945$$

II. Reporting arrangement

Division A - RWA

a. Part IIIa

(in HK\$'000)

		On-balance sheet exposures	Off-balance sheet exposures			(in HK\$ 000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount / Notional Amount (A2)	Credit Equivalent Amount (A3)	Default Risk Exposure (A4)	Risk- weight % (A5)	Risk- weighted Amount (A6) = (A1+A3+A4) x A5
Class XII Other Exposures							
12a.	Exposures to corporates or individuals not elsewhere reported		30,000		529	100	529
12b.	Premises, plant and equipment, other fixed assets for own use, and other interest in land					100	
12f.	Other exposures not elsewhere reported						
12f(i).							
12f(ii).							
12f(iii).							
12f(iv).							
SUBTOTAL			30,000		529		529

b. Part IIIb

(in HK\$'000)

(In HK\$ '000)

		On-balance sheet exposures		Off-balance sheet exposures				
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8a(ii).	Risk-weight 30%						30	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%			30,000		529	100	529
8b(iii).	Risk-weight 150%						150	
SUBTOTAL				30,000		529		529

Division B – Default risk exposure amount

a. Part IIIa Division B - III

(in HK\$'000)

Item	Nature of item					
19.	Unmargined contracts not covered by recognized netting					
	Type of Contract	Total Notional Amount (B18)	Total Replacement Cost (B19)	Total Potential Future Exposure (B20)	Total Default Risk Exposure (B21)	Out of which: Sovereign exposures (B22) Exposures to corporates or individuals (B26)
19a.	Interest rate contracts	20,000	10	215	315	315
19b.	Exchange rate contracts					
19c.	Credit-related derivative contracts	10,000	50	103	214	214
19d.	Equity-related derivative contracts					
19e.	Commodity-related derivative contracts					
	SUBTOTAL	30,000	60	318	529	529

b. Part IIIb Division B - II

(in HK\$'000)

Item	Nature of item							
12.	Unmargined contracts not covered by recognized netting							
	Type of Contract	Total Notional Amount (B13)	Total Replacement Cost (B14)	Total Potential Future Exposure (B15)	Total Default Risk Exposure (B16)	Out of which:		
						Sovereign exposures (B17)	Corporate exposures (B22)	Retail exposures (B23)
12a.	Interest rate contracts	20,000	10	215	315		315	
12b.	Exchange rate contracts							
12c.	Credit-related derivative contracts	10,000	50	103	214		214	
12d.	Equity-related derivative contracts							
12e.	Commodity-related derivative contracts							
	SUBTOTAL	30,000	60	318	529		529	

Case 2: Margined contracts not covered by recognized netting

In this case, the netting sets include netting sets A and B in Case 1 and the following netting sets:

Netting set D

Contract	Type of contract	Entity	Number of units referenced by the contract	Strike (HK\$)	Residual maturity (in year)	Current price of underlying (HK\$)	Market value (HK\$'000)
A4	Bought equity call option (European style)	Firm B	1,000	245	0.25	234	11

Netting set E

Contract	Type of contract	Notional (US\$'000)	Contract rate	Residual maturity (in year)	Market value (HK\$'000)
A5	Long FX forward (USD/CNH)	1,000	6.6248	0.4	16

The four netting sets are subject to the same margin agreement with the following details:

(in HK\$'000)

Margining frequency	Threshold	Min. Transfer Amount	Independent Amount	Haircut value of net collateral held by the AI
daily	0	5	450	500

I. Calculation of default risk exposure

Step 1: Calculation of replacement cost (RC) of netting sets covered by margin agreement MA

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

Contract	$\max\{V_{NS}; 0\}$	$\min\{V_{NS}; 0\}$
A1	10	0
A2	0	-25
A4	11	0

A5	16	0
Total	37	-25

$$= \max\{37 - \max\{500; 0\}; 0\} + \max\{-25 - \min\{500; 0\}; 0\}$$

$$= \max(37 - 500; 0) + \max(-25; 0)$$

$$= 0$$

Step 2: Calculation of add-on at the level of netting set

Step 2.1: Calculation of contract-level adjusted notional amount (d_i)

Contract	Hedging Set	USD leg (HK\$'000)	CNH leg (HK\$'000)	Number of units referenced by the contract	Current price of one unit of the underlying assets (HK\$)	Adjusted notional amount (d_i) (HK\$'000)
A4	Firm B	NA	NA	1,000	234	234
A5	USD/CNH	7,774	7,881	NA	NA	7,881

Step 2.2: Calculation of effective notional amount (D_i) at the level of hedging set

Contract	Residual maturity (M_i)	Supervisory delta (δ_i) (a)	Adjusted notional amount (d_i) (HK\$'000) (b)	Maturity factor (MF_i) (c)	Effective notional amount (D_i) (HK\$'000) = (a) $\times$ (b) $\times$ (c)
A4	0.25	+0.588	234	0.5000	69
A5	0.40	+1	7,881	0.6325	4,984

The supervisory delta adjustment of Contract A4 is calculated in accordance with §226BZB(2) and (3) of the BCR. Spot price of the underlying equity is used in the calculation for illustrative purposes.

$$\delta_{A4} = +N\left(\frac{\ln\left(\frac{P}{K}\right) + 0.5 \cdot \sigma^2 \cdot T}{\sigma \cdot \sqrt{T}}\right)$$

$$\delta_{A4} = +N\left(\frac{\ln\left(\frac{234}{245}\right) + 0.5 \cdot 120\%^2 \cdot 0.25}{120\% \cdot \sqrt{0.25}}\right)$$

$$= +0.588$$

As there are multiple netting sets covered by the same variation margin agreement, the potential future exposure of each of Contract A4 and Contract A5 must be calculated in a manner as if the contracts were unmargined contracts (see §226BS of the BCR). Accordingly, the maturity factor of each of the contracts is calculated by using the formula for unmargined contracts.

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

$$MF_{A4}^{(unmargined)} = \sqrt{\frac{\min\{0.25; 1\}}{1}} = 0.5$$

$$MF_{A5}^{(unmargined)} = \sqrt{\frac{\min\{0.4; 1\}}{1}} = 0.6325$$

Step 2.3: Calculation of add-on at the level of netting set

Contract	Effective notional amount (D_i) (HK\$'000) (a)	Supervisory factor (SF) (b)	Add-on³ (HK\$'000) = (a) × (b)
A4	69	32%	22.03
A5	4,984	4%	199.36

³ See footnote 2 above.

Step 3: Calculation of potential future exposure (PFE) of netting sets covered by margin agreement MA

Step 3.1: Calculation of multiplier of each netting set

As the same collateral is shared by four netting sets and the AI in this example is a net receiver of collateral ($C > 0$), netting sets with positive market values must first be allocated collateral up to the amount of those market values. Only after all positive market values have been compensated may surplus collateral be attributed freely among all netting sets. Also, the allocated parts must add up to the total collateral available for the margin agreement. Apart from these limitations, AIs may allocate available collateral at their discretion. The following table shows the multipliers calculated by using one of the possible collateral allocations.

Netting set	Market value (HK\$'000)	Collateral allocated* (HK\$'000)	Multiplier
A	10	22.65	0.375
B	-25	0	0.945
D	11	55.90	0.375
E	16	421.44	0.376

*The allocation is for illustrative purpose only and does not represent any preference of the HKMA.

From Case 1, the multiplier of netting set B is 0.945. The multipliers of other netting sets are calculated as follows:

$$multiplier_{netting\ set\ A} = \min \left\{ 1; 5\% + (1 - 5\%) * \exp \left(\frac{10 - 22.65}{2 * (1 - 5\%) * 6.21} \right) \right\} = 0.375$$

$$multiplier_{netting\ set\ D} = \min \left\{ 1; 5\% + (1 - 5\%) * \exp \left(\frac{11 - 55.90}{2 * (1 - 5\%) * 22.03} \right) \right\} = 0.375$$

$$multiplier_{netting\ set\ E} = \min \left\{ 1; 5\% + (1 - 5\%) * \exp \left(\frac{16 - 421.44}{2 * (1 - 5\%) * 199.36} \right) \right\} = 0.376$$

Step 3.2: Calculation of PFE of each netting set on unmargined basis

Netting set	AddOn (HK\$'000) (a)	Multiplier (b)	PFE (unmargined) (HK\$'000) = (a) × (b)
A	6.21	0.375	2.33

Netting set	AddOn (HK\$'000) (a)	Multiplier (b)	PFE (unmargined) (HK\$'000) = (a)×(b)
B	221.20	0.945	209.06
D	22.03	0.375	8.26
E	199.36	0.376	74.91
Total			294.56

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

$$= 294.56$$

Step 4: Calculation of default risk exposure of netting sets covered by margin agreement MA

$$Default\ risk\ exposure_{MA} = \alpha * (RC_{MA} + PFE_{MA}) = 1.4 * (0 + 294.56) = 412$$

II. Reporting arrangement

Division A - RWA

a. Part IIIa

(in HK\$'000)

		On-balance sheet exposures	Off-balance sheet exposures				
Item	Nature of item	Principal Amount (A1)	Principal Amount / Notional Amount (A2)	Credit Equivalent Amount (A3)	Default Risk Exposure (A4)	Risk- weight % (A5)	Risk- weighted Amount (A6) = (A1+A3+A4) x A5
Class XII Other Exposures							
12a.	Exposures to corporates or individuals not elsewhere reported		28,008		412	100	412
12b.	Premises, plant and equipment, other fixed assets for own use, and other interest in land					100	
12f.	Other exposures not elsewhere reported						
12f(i).							
12f(ii).							
12f(iii).							
12f(iv).							
SUBTOTAL			28,008		412		412

b. Part IIIb

(in HK\$'000)

Item	Nature of item	On-balance sheet exposures		Off-balance sheet exposures			Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
		Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8a(ii).	Risk-weight 30%						30	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%			28,008		412	100	412
8b(iii).	Risk-weight 150%						150	
SUBTOTAL				28,008		412		412

Division B – Default risk exposure amount

In this example, the stated notional amount of the FX forward contract is USD1,000. The notional amount reported in the CAR return is the HKD equivalent of USD1,000, instead of the adjusted notional amount of the contract.

a. Part IIIa Division B – III

(in HK\$'000)

20. Margined contracts not covered by recognized netting						
Type of Contract	Total Notional Amount (B18)	Total Replacement Cost (B19)	Total Potential Future Exposure (B20)	Total Default Risk Exposure (B21)	Out of which:	
					Sovereign exposures (B22)	Exposures to corporates or individuals (B26)
20a. Interest rate contracts	20,000					
20b. Exchange rate contracts	7,774					
20c. Credit-related derivative contracts						
20d. Equity-related derivative contracts	234					
20e. Commodity-related derivative contracts						
20f. Multiple netting sets covered by single variation margin agreement		0	294	412		412
SUBTOTAL	28,008	0	294	412		412

b. Part IIIb Division B - II

(in HK\$'000)

Item	Nature of item						
13.	Margined contracts not covered by recognized netting						
	Type of Contract	Total Notional Amount (B13)	Total Replacement Cost (B14)	Total Potential Future Exposure (B15)	Total Default Risk Exposure (B16)	Out of which:	
						Sovereign exposures (B17)	Corporate exposures (B22) Retail exposures (B23)
13a.	Interest rate contracts	20,000					
13b.	Exchange rate contracts	7,774					
13c.	Credit-related derivative contracts						
13d.	Equity-related derivative contracts	234					
13e.	Commodity-related derivative contracts						
13f.	Multiple netting sets covered by single variation margin agreement		0	294	412		412
	SUBTOTAL	28,008	0	294	412		412

Case 3: Unmargined contracts covered by recognized netting

In this case, the contracts involved are the same as contracts A1, A2 and A3 in Case 1, except that the three contracts are covered by recognized netting and therefore fall within the same netting set. Also, neither the AI nor the counterparty has posted collateral for the contracts.

I. Calculation of default risk exposure

Step 1: Calculation of replacement cost (RC) at the level of netting set

$$RC = \max (V - C; 0) = \max (10 - 25 + 50; 0) = 35$$

Step 2: Calculation of add-on at the level of netting set

Step 2.1: Calculation of effective notional amount (D_i) at the level of hedging set

From Case 1, we have the following information on each of the derivative contracts:

Contract	Maturity bucket	Residual maturity (M_i)	Supervisory delta (δ_i)	Adjusted notional amount (d_i) (HK\$'000)	Maturity factor (MF_i)	Effective notional amount (D_i) (HK\$'000) = (a) $\times$ (b) $\times$ (c)
			(a)	(b)	(c)	
A1	1	0.25	+1	2,484	0.5	1,242
A2	2	5	-1	44,240	1	-44,240
A3	NA	2	-1	19,033	1	-19,033

The effective notional amount of the hedging set that contains contracts A1 and A2 is calculated by using Formula 23AS in §226BU(2) of the BCR as follows:

$$Effective\ Notional_{hedging\ set} = [(D_{A1})^2 + (D_{A2})^2 + 1.4 \cdot D_{A1} \cdot D_{A2}]^{0.5}$$

$$= [(1,242)^2 + (-44,240)^2 + 1.4 * (1,242) * (-44,240)]^{0.5} = 43,379.67$$

Step 2.2: Calculation of add-on at the level of asset class

Given the effective notional amounts calculated under Step 2.1, the add-on for each asset class is calculated as follows:

Asset class	Effective notional amount (HK\$'000) (a)	Supervisory factor (b)	Add-on⁴ (HK\$'000) = (a) × (b)
Interest rate contracts	43,380	0.5%	216.90
Credit-related derivative contracts	19,033	0.54%	102.78

Step 2.3: Calculation of add-on at the level of netting set

$$AddOn^{(aggregate)} = AddOn^{(IR)} + AddOn^{(Credit)} = 216.90 + 102.78 = 319.68$$

Step 3: Calculation of potential future exposure at the level of netting set

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

$$= \min \left\{ 1; 5\% + (1 - 5\%) * \exp \left(\frac{(10 - 25 + 50) - 0}{2 * (1 - 5\%) * 319.68} \right) \right\}$$

$$= 1$$

$$PFE = multiplier * Addon^{(aggregate)} = 1 * (319.68) = 319.68$$

Step 4: Calculation of default risk exposure of the netting set

$$Default Risk Exposure = alpha * (RC + PFE) = 1.4 * (35 + 319.68) = 496.55$$

⁴ Also see footnote 2.

II. Reporting arrangement

Division A - RWA

a. Part IIIa

(in HK\$'000)

(in HK\$ 000,000)

		On-balance sheet exposures	Off-balance sheet exposures				
Item	Nature of item	Principal Amount (A1)	Principal Amount / Notional Amount (A2)	Credit Equivalent Amount (A3)	Default Risk Exposure (A4)	Risk- weight % (A5)	Risk- weighted Amount (A6) = (A1+A3+A4) x A5
Class XII Other Exposures							
12a.	Exposures to corporates or individuals not elsewhere reported		30,000		497	100	497
12b.	Premises, plant and equipment, other fixed assets for own use, and other interest in land					100	
12f.	Other exposures not elsewhere reported						
12f(i).							
12f(ii).							
12f(iii).							
12f(iv).							
SUBTOTAL			30,000		497		497

b. Part IIIb

(in HK\$'000)

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$ 000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8a(ii).	Risk-weight 30%						30	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%			30,000		497	100	49
8b(iii).	Risk-weight 150%						150	
SUBTOTAL				30,000		497		49

Division B – Default risk exposure amount

a. Part IIIa Division B – III

(in HK\$'000)

21. Contracts covered by recognized netting						
Type of Contract	Total Notional Amount (B18)	Total Replacement Cost (B19)	Total Potential Future Exposure (B20)	Total Default Risk Exposure (B21)	Out of which:	
					Sovereign exposures (B22)	Exposures to corporates or individuals (B26)
21a. Interest rate contracts	20,000					
21b. Exchange rate contracts						
21c. Credit-related derivative contracts						
21d. Equity-related derivative contracts	10,000					
21e. Commodity-related derivative contracts						
SUBTOTAL	30,000	35	320	497		497

b. Part IIIb Division B - II

(in HK\$'000)

Item	Nature of item						
14.	Contracts covered by recognized netting						
	Type of Contract	Total Notional Amount (B13)	Total Replacement Cost (B14)	Total Potential Future Exposure (B15)	Total Default Risk Exposure (B16)	Out of which:	
						Sovereign exposures (B17)	Corporate exposures (B22)
14a.	Interest rate contracts	20,000					
14b.	Exchange rate contracts						
14c.	Credit-related derivative contracts	10,000					
14d.	Equity-related derivative contracts						
14e.	Commodity-related derivative contracts						
	SUBTOTAL	30,000	35	320	497		497

Case 4: Margined contracts covered by recognized netting

In this case, the contracts involved are the same as Case 2 and subject to the same margin agreement as described in Case 2, except that the contracts are covered by the same valid bilateral netting agreement and therefore fall within the same netting set.

I. Calculation of default risk exposure

Step 1: Calculation of replacement cost (RC) at the level of netting set

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

$$V = 10 - 25 + 11 + 16 = 12$$

$$RC = \max(12 - 500; 0 + 5 - 450; 0) = 0$$

Step 2: Calculation of add-on at the level of netting set

Step 2.1: Calculation of contract-level effective notional amount (D_i)

From Cases 1 and 2, we have the following information on each of the derivative contracts:

Contract	Maturity bucket	Supervisory delta (δ_i)	Adjusted notional amount (d_i) (HK\$'000)	Maturity factor (MF_i)	Effective notional amount (D_i) (HK\$'000)
		(a)	(b)	(c)	= (a) × (b) × (c)
A1	1	+1	2,484	0.3	745.33
A2	2	-1	44,240	0.3	-13,271.95
A4	NA	+0.588	234	0.3	41.31
A5	NA	+1	7,881	0.3	2,364.17

The maturity factor for margined transactions depends on the margin period of risk (MPOR). For daily re-margining, the MPOR is at least 10 business days. In this example, the contracts are not centrally cleared and the requirements in §226BZE(3), (4) and (6) do not apply to the contracts. Hence, the maturity factor for the contracts in the netting set is as follows (the convention of 250 business days in a year is used):

$$MF_i^{(\text{margined})} = \frac{3}{2} \sqrt{\frac{MPOR_i}{1 \text{ year}}} = 1.5 * \sqrt{\frac{10}{250}} = 0.3$$

Step 2.2: Calculation of effective notional amount (D_i) at the level of hedging set

Contracts A1 and A2 are in the same hedging set but in different maturity buckets. The effective notional amount of the hedging set is calculated by using Formula 23AS in §226BU(2) of the BCR as follows:

$$\begin{aligned} \text{Effective Notional} &= [(D_{A1})^2 + (D_{A2})^2 + 1.4 \cdot D_{A1} \cdot D_{A2}]^{0.5} \\ &= [(745.33)^2 + (-13,271.95)^2 + 1.4 * (745.33) * (-13,271.95)]^{0.5} = 12,761.33 \end{aligned}$$

In the case of Contracts A4 and A5, each contract forms its own hedging set. Hence, the effective notional amount of each hedging set is same as the contract-level effective notional amount.

Step 2.3: Calculation of add-on at the level of asset class

Given the effective notional amounts calculated under Step 2.2, the add-on for each asset class is calculated as follows:

Asset class	Effective notional amount (HK\$'000) (a)	Supervisory factor (b)	Add-on⁵ (HK\$'000) = (a) × (b)
Interest rate contract	12,761.33	0.5%	63.81
Equity-related derivative contract	41.31	32%	13.22
Exchange rate contract	2,364.17	4%	94.57

Step 2.4: Calculation of add-on at the level of netting set

$$\begin{aligned} \text{AddOn}^{(\text{aggregate})} &= \text{AddOn}^{(IR)} + \text{AddOn}^{(\text{Equity})} + \text{AddOn}^{(FX)} \\ &= 63.81 + 13.22 + 94.57 = 171.59 \end{aligned}$$

⁵ See footnote 2, which also applies in the case of equity-related derivative contracts.

Step 3: Calculation of potential future exposure at the level of netting set

$$\text{multiplier} = \min \left\{ 1; \text{Floor} + (1 - \text{Floor}) * \exp \left(\frac{V - C}{2 * (1 - \text{Floor}) * \text{AddOn}^{(\text{aggregate})}} \right) \right\}$$

$$= \min \left\{ 1; 5\% + (1 - 5\%) * \exp \left(\frac{12 - 500}{2 * (1 - 5\%) * 171.59} \right) \right\}$$

$$= 0.2627$$

$$\text{PFE} = \text{multiplier} * \text{AddOn}^{(\text{aggregate})} = 0.2627 * (171.59) = 45.07$$

Step 4: Calculation of default risk exposure of the netting set

$$\text{Default Risk Exposure} = \alpha * (RC + \text{PFE}) = 1.4 * (0 + 45.07) = 63$$

II. Reporting arrangement

Division A - RWA

a. Part IIIa

(in HK\$'000)

(In HK\$ '000)

		On-balance sheet exposures	Off-balance sheet exposures				
Item	Nature of item	Principal Amount (A1)	Principal Amount / Notional Amount (A2)	Credit Equivalent Amount (A3)	Default Risk Exposure (A4)	Risk- weight % (A5)	Risk- weighted Amount (A6) = (A1+A3+A4) x A5
Class XII Other Exposures							
12a.	Exposures to corporates or individuals not elsewhere reported		28,008		63	100	63
12b.	Premises, plant and equipment, other fixed assets for own use, and other interest in land					100	
12f.	Other exposures not elsewhere reported						
12f(i).							
12f(ii).							
12f(iii).							
12f(iv).							
SUBTOTAL			28,008		63		63

b. Part IIIb

(in HK\$'000)

Item	Nature of item	On-balance sheet exposures		Off-balance sheet exposures			Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
		Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8a(ii).	Risk-weight 30%						30	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%			28,008		63	100	63
8b(iii).	Risk-weight 150%						150	
SUBTOTAL				28,008		63		63

Division B – Default risk exposure amount

a. Part IIIa Division B – III

(in HK\$'000)

21. Contracts covered by recognized netting						
Type of Contract	Total Notional Amount (B18)	Total Replacement Cost (B19)	Total Potential Future Exposure (B20)	Total Default Risk Exposure (B21)	Out of which:	
					Sovereign exposures (B22)	Exposures to corporates or individuals (B26)
21a. Interest rate contracts	20,000					
21b. Exchange rate contracts	7,774					
21c. Credit-related derivative contracts						
21d. Equity-related derivative contracts	234					
21e. Commodity-related derivative contracts						
SUBTOTAL	28,008	0	45	63		63

b. Part IIIb Division B – II

(in HK\$'000)

Item	Nature of item						
14.	Contracts covered by recognized netting						
Type of Contract	Total Notional Amount (B13)	Total Replacement Cost (B14)	Total Potential Future Exposure (B15)	Total Default Risk Exposure (B16)	Out of which:		
					Sovereign exposures (B17)	Corporate exposures (B22)	Retail exposures (B23)
14a.	Interest rate contracts	20,000					
14b.	Exchange rate contracts	7,774					
14c.	Credit-related derivative contracts						
14d.	Equity-related derivative contracts	234					
14e.	Commodity-related derivative contracts						
SUBTOTAL		28,008	0	45	63		63

Examples of calculation of risk-weighted amount of CIS exposure with portion constituting deductible holding

The following examples deliberately incorporate certain assumptions for the sake of simplicity and ease of illustration. When determining the amount of capital deduction and the amount subject to risk-weighting for capital instruments or non-capital LAC liabilities in an actual case, AIs should always refer to and follow the relevant provisions set out in Division 4 of Part 3 (including the relevant schedules) of the BCR.

The reporting arrangements are intended to illustrate what principal amounts should be reported when the collective investment scheme concerned has a leverage level of more than 1.

Although risk-weights under the STC approach are used in the examples for illustration, the calculation steps illustrated also apply to the BSC approach.

Example 1: Capital instruments held by a Level 1 CIS

Consider a Level 1 CIS that has the following balance sheet:

Asset	
Cash	\$20
CET1 capital instruments issued by:	
— financial sector entity A	\$100
— financial sector entity B	\$100
Debt securities (A rated) issued by sovereigns	\$280
Listed equities issued by	
— Commercial entity A	\$100
— Other commercial entities	\$400
Liabilities	
Note payable	\$50
Equity	
Shares	\$950

Moreover, assume the following:

- ♦ an AI using the STC approach owns 20% of the shares of the Level 1 CIS and the principal amount of the AI's equity investment in the Level 1 CIS (*P_{CIS exposure}*) is \$190;

- ♦ financial sector entities A and B and commercial entity A have the following relationship with the AI:
 - the AI owns less than 10% of the issued ordinary share capital of financial sector entity A and owns more than 10% of the issued ordinary share capital of financial sector entity B. Both financial sector entities are not subject to a section 3C requirement and they are not affiliates of the AI; and
 - commercial entity A is an affiliate of the AI; and
- ♦ none of the listed equities held by the Level 1 CIS are required to be deducted from the AI's CET1 capital under §43 of the BCR. Moreover, the other commercial entities are not affiliates of the AI and the AI does not have any shareholdings in them.

Portion of the AI's CIS exposure that constitutes deductible holding (§70A)

Given—

- (a) total amount of regulatory deductible items held by the Level 1 CIS (P_{RDI}) = \$100 + \$100 = \$200;
- (b) total assets of the Level 1 CIS (TA) = \$1000; and
- (c) equity of the Level 1 CIS (TE) = \$950,

amount of the AI's CIS exposure to the Level 1 CIS that constitutes deductible holding (P_{DH}) is calculated as follows:

$$\begin{aligned}
 P_{DH} &= \frac{(P_{RDI})}{(TA)} \cdot P_{CIS \text{ exposure}} \\
 &= \frac{(200)}{(1000)} \cdot (190) = 38
 \end{aligned}$$

However, since the Level 1 CIS uses leverage, the AI's actual exposure to the regulatory deductible items = *leverage of Level 1 CIS* $\times P_{DH} = \frac{(1000)}{(950)} \cdot (38) = 40$

Alternatively, the AI may calculate the amount of its indirect holding of the regulatory deductible items by multiplying P_{RDI} by 20% = $200 \times 20\% = 40$

Amount of the AI's deductible holding subject to capital deduction

After applying all the relevant provisions in Division 4 of Part 3 (including relevant schedules) of the BCR, the AI determines that the total amount of the deductible holding that must be deducted from its CET1 capital is **\$34**.

RWA of the AI's deductible holding not subject to capital deduction

$$\text{RWA} = (4 \times 250\%) + (2 \times 250\%) = \text{\$15}$$

	Principal amount	Risk-weight	RWA	Capital deduction
CET1 capital instruments issued by:				
— financial sector entity A (BCR §43(1)(o), §70A(3)(a) and Schedule 4F)				
• share of the AI that is subject to risk-weighting	\$4	250%	\$10	-
• share of the AI that is subject to capital deduction	\$16	-	-	\$16
— financial sector entity B (BCR §43(1)(p), §70A(3)(c) and Schedule 4G)				
• share of the AI that is subject to risk-weighting	\$2	250%	\$5	-
• share of the AI that is subject to capital deduction	\$18	-	-	\$18

Portion of the AI's CIS exposure that does not constitute deductible holding (Part 6B and §226ZT)

Under the LTA, the risk-weighted amount (RWA) of the underlying exposures of the Level 1 CIS are calculated as follows:

	Principal amount	Risk-weight	RWA
Cash (BCR §65K(1))	\$20	0%	\$0
Debt securities (A rated) issued by sovereigns (BCR §55)	\$280	20%	\$56

Listed equities			
— Commercial entity A (BCR §226ZO(3)(a) and §65G(1)(b))	\$100	250%	\$250
— Other commercial entities (BCR §65G(1)(b))	\$400	250%	\$1000

Given—

(a) underlying exposures of the Level 1 CIS that are not regulatory deductible items ($P_{non-RDI}$)
 $= 1000 - 200 = 800$; and

(b) $RWA_{non-RDI}$ is the RWA of $P_{non-RDI}$ calculated by using the LTA,

amount of the AI's CIS exposure to the Level 1 CIS that does not constitute deductible holding (P_{non-DH}) is calculated as follows:

$$P_{non-DH} = \frac{(P_{non-RDI})}{(TA)} \cdot P_{CIS \text{ exposure}}$$

$$= \frac{(800)}{(1000)} \cdot (190) = 152$$

RWA_{non-DH} is then calculated as follows:

$$RWA_{non-DH} = \left(\frac{RWA_{non-RDI}}{TA - P_{RDI}} \right) \cdot \frac{TA}{TE} \cdot P_{non-DH}$$

$$= \left(\frac{20 \cdot 0\% + 280 \cdot 20\% + 100 \cdot 250\% + 400 \cdot 250\%}{1000 - 200} \right) \cdot \frac{1000}{950} \cdot 152$$

$$= \left(\frac{56 + 250 + 1000}{800} \right) \cdot 160$$

$$= 261.2$$

Reporting arrangements for Part IIIb of MA(BS)3

Reporting of the portion that does not constitute deductible holding

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class XVII	Collective Investment Scheme Exposures (CIS exposures)							
17a.	Look-through approach / third-party approach							
17a(i).	Risk-weight ≤ 20%							
17a(ii).	Risk-weight > 20% - 50%							
17a(iii).	Risk-weight > 50% - 100%							
17a(iv).	Risk-weight > 100% - 250%	152	152				172	261
17a(v).	Risk-weight > 250% - 650%							
17a(vi).	Risk-weight > 650% - 1250%							
SUBTOTAL		152	152					261

Reporting of the portion that constitutes deductible holding and is subject to risk-weighting

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class XIIC	Insignificant and Significant LAC Investments							
12f.	Insignificant LAC Investments							
12f(i)	Risk-weight 150%						150	
12f(ii)	Risk-weight 250%	4	4				250	10
12f(iii)	Risk-weight 400%						400	
12g.	Significant LAC investments							
12g(i)	Risk-weight 150%						150	
12g(ii)	Risk-weight 250%	2	2				250	5
12g(iii)	Risk-weight 400%						400	
12h.	Holdings of non-capital LAC liabilities						150	
SUBTOTAL		6	6					15

Example 2: Capital instruments held by a Level 2 CIS

Consider a Level 1 CIS that has the following balance sheet:

Asset	
Cash	\$20
CIS exposure to a <u>Level 2 CIS</u>	\$40
Debt securities (A rated) issued by sovereigns	\$580
Listed equities	\$360
Liabilities	
Note payable	\$50
Equity	
Shares	\$950

Moreover, assume the following:

- ♦ an AI using the STC approach owns 20% of the shares of the Level 1 CIS and the principal amount of the AI's equity investment in the Level 1 CIS (*P_{CIS exposure}*) is \$190; and
- ♦ the AI is able to use the LTA to calculate the RWAs of the underlying exposures of the Level 1 CIS and the Level 2 CIS.

The following is the balance sheet of the Level 2 CIS:

Asset	
Cash	\$10
CET1 capital instruments issued by financial sector entity A	\$200
Debt securities (A rated) issued by sovereigns	\$190
Listed equities	\$400
Liabilities	
Note payable	\$0
Equity	
Shares	\$800

- ♦ The AI owns less than 10% of the issued ordinary share capital of financial sector entity A which is neither an entity subject to a section 3C requirement nor an affiliate of the AI.

- None of the listed equities held by the Level 1 CIS and the Level 2 CIS are required to be deducted from the AI's CET1 capital under §43 of the BCR. Moreover, none of these equities are issued by commercial entities that are affiliates of the AI. The AI also does not have any shareholdings in the commercial entities.

Step 1: Level 1 CIS's CIS exposure to Level 2 CIS

Under the LTA, the RWA of the Level 1 CIS's CIS exposure to the Level 2 CIS ($RWA_{CIS\ expo\ 2}$) is calculated as follows:

$$RWA_{CIS\ expo\ 2} = \frac{P_{RDI} \cdot RW_{RDI} + RWA_{non-RDI}}{TA_2} \cdot \frac{TA_2}{TE_2} \cdot (P_{CIS\ expo\ 2}) \dots (1)$$

where—

- (a) P_{RDI} is the amount of regulatory deductible items held by the Level 2 CIS;
- (b) RW_{RDI} is the risk-weight¹ applicable to the regulatory deductible items;
- (c) $RWA_{non-RDI}$ is the RWA of the underlying exposures of the Level 2 CIS that are not regulatory deductible items;
- (d) TA_2 is the total assets of the Level 2 CIS;
- (e) TE_2 is the equity of the Level 2 CIS; and
- (f) $P_{CIS\ expo\ 2}$ is the CIS exposure of the Level 1 CIS to the Level 2 CIS.

By rearranging equation (1) above, the CIS exposure to the Level 2 CIS and its RWA can be divided into two portions—

$$\begin{aligned} RWA_{CIS\ expo\ 2} &= \frac{P_{RDI} \cdot RW_{RDI}}{P_{RDI}} \cdot \frac{TA_2}{TE_2} \cdot \left(\frac{P_{RDI}}{TA_2} \cdot P_{CIS\ expo\ 2} \right) + \frac{RWA_{non-RDI}}{P_{non-RDI}} \cdot \frac{TA_2}{TE_2} \cdot \left(\frac{P_{non-RDI}}{TA_2} \cdot P_{CIS\ expo\ 2} \right) \\ &= P_{RDI} \cdot RW_{RDI} \cdot \%_{L1\ CIS} + \frac{RWA_{non-RDI}}{P_{non-RDI}} \cdot \frac{TA_2}{TE_2} \cdot \left(\frac{P_{non-RDI}}{TA_2} \cdot P_{CIS\ expo\ 2} \right) \dots (2) \end{aligned}$$

where—

- (a) $\%_{L1\ CIS}$ is the share of the Level 1 CIS in the equity of the Level 2 CIS; and
- (b) $P_{non-RDI}$ is the amount of underlying exposures (other than regulatory deductible items) held by the Level 2 CIS.

¹ In order to illustrate how to identify the portion of a CIS exposure that contributes to the deductible holding of the AI, capital deduction is represented by the application of a risk-weight (i.e. 1250%) in the equations in this example.

For the portion of the CIS exposure in relation to underlying exposures other than regulatory deductible items (i.e. the portion that is subject to Part 6B of the BCR, where the regulatory deductible items are excluded in accordance with §226ZX(2)), the RWA of that portion is calculated as follows:

	Principal amount	Risk-weight	RWA
Cash (BCR §65K(1))	\$10	0%	\$0
Debt securities (A rated) issued by sovereigns (BCR §55)	\$190	20%	\$38
Listed equities (BCR §65G(1)(b))	\$400	250%	\$1000

$$\begin{aligned}
 RWA &= \frac{RWA_{non-RDI}}{P_{non-RDI}} \cdot \frac{TA_2}{TE_2} \cdot \left(\frac{P_{non-RDI}}{TA_2} \cdot P_{CIS \text{ expo } 2} \right) \\
 &= \left(\frac{10 \cdot 0\% + 190 \cdot 20\% + 400 \cdot 250\%}{800 - 200} \right) \cdot \frac{800}{800} \cdot \frac{600}{800} \cdot 40 \\
 &= 51.9
 \end{aligned}$$

Step 2: AI's CIS exposure to Level 1 CIS

$$RWA_{CIS \text{ expo}} = \frac{RWA_{CIS \text{ expo } 2} + RWA_{non-CIS}}{TA_1} \cdot \frac{TA_1}{TE_1} \cdot P_{CIS \text{ expo}} \dots (3)$$

where—

- (a) $RWA_{CIS \text{ expo}}$ is the RWA of the AI's CIS exposure to the Level 1 CIS;
- (b) $RWA_{non-CIS}$ is the RWA of the underlying exposures of the Level 1 CIS that are not CIS exposures;
- (c) $P_{CIS \text{ expo}}$ is the amount of the AI's CIS exposure to the Level 1 CIS;
- (d) TA_1 is the total assets of the Level 1 CIS; and
- (e) TE_1 is the equity of the Level 1 CIS.

By substituting equation (2) into equation (3), the CIS exposure to the Level 1 CIS and its RWA can be divided into two portions—

$$RWA_{CIS \text{ expo}}$$

$$\begin{aligned}
&= \frac{P_{RDI} \cdot RW_{RDI} \cdot \%_{L1 \text{ CIS}} + 51.9 + RWA_{non-CIS}}{TA_1} \cdot \frac{TA_1}{TE_1} \cdot P_{CIS \text{ expo}} \\
&= \frac{P_{RDI} \cdot RW_{RDI} \cdot \%_{L1 \text{ CIS}}}{TA_1} \cdot \frac{TA_1}{TE_1} \cdot P_{CIS \text{ expo}} + \frac{51.9 + RWA_{non-CIS}}{TA_1} \cdot \frac{TA_1}{TE_1} \cdot P_{CIS \text{ expo}} \\
&= \frac{P_{RDI} \cdot RW_{RDI} \cdot \%_{L1 \text{ CIS}}}{P_{RDI} \cdot \%_{L1 \text{ CIS}}} \cdot \frac{TA_1}{TE_1} \cdot \left(\frac{P_{RDI} \cdot \%_{L1 \text{ CIS}}}{TA_1} \cdot P_{CIS \text{ expo}} \right) + \frac{51.9 + RWA_{non-CIS}}{TA_1 - P_{RDI} \cdot \%_{L1 \text{ CIS}}} \cdot \frac{TA_1}{TE_1} \\
&\cdot \left(\frac{TA_1 - P_{RDI} \cdot \%_{L1 \text{ CIS}}}{TA_1} \cdot P_{CIS \text{ expo}} \right)
\end{aligned}$$

Portion of the AI's CIS exposure that does not constitute deductible holding (Part 6B)

For the portion of the AI's CIS exposure that does not constitute deductible holding (i.e. the portion that is subject to Part 6B of the BCR), the amount of that portion is calculated as follows:

$$\begin{aligned}
&= \frac{TA_1 - P_{RDI} \cdot \%_{L1 \text{ CIS}}}{TA_1} \cdot P_{CIS \text{ expo}} \\
&= \frac{1000 - 200 \cdot 5\%}{1000} \cdot 190 \\
&= 188.1
\end{aligned}$$

The RWA of that portion (RWA_{non-DH}) is calculated as follows:

	Principal amount	Risk-weight	RWA
Cash (BCR §65K(1))	\$20	0%	\$0
CIS exposure to a <u>Level 2 CIS</u>	-	-	\$51.9 ²
Debt securities (A rated) issued by sovereigns (BCR §55)	\$580	20%	\$116
Listed equities (BCR §65G(1)(b))	\$360	250%	\$900

$$\begin{aligned}
RWA_{non-DH} &= \frac{51.9 + RWA_{non-CIS}}{TA_1 - P_{RDI} \cdot \%_{L1 \text{ CIS}}} \cdot \frac{TA_1}{TE_1} \cdot 188.1 \\
&\left(\frac{0 + 51.9 + 116 + 900}{1000 - 10} \right) \cdot \frac{1000}{950} \cdot 188.1
\end{aligned}$$

² This is the RWA calculated under Step 1.

$$= 213.58$$

Step 3: Portion of the AI's CIS exposure to Level 1 CIS that constitutes deductible holding (§70A)

Amount of the AI's CIS exposure to the Level 1 CIS that constitutes deductible holding (P_{DH}) is calculated as follows:

$$\begin{aligned} P_{DH} &= P_{RDI} \cdot \%_{L1 \text{ CIS}} \cdot \%_{AI} \\ &= 200 \cdot \frac{40}{800} \cdot \frac{190}{950} \\ &= 2 \end{aligned}$$

where $\%_{AI}$ is the share of the AI in the equity of the Level 1 CIS.

Amount of the AI's deductible holding subject to capital deduction (§43(1)(o), §70A(2)(a) and (c), and Schedule 4F)

After applying all the relevant provisions in Division 4 of Part 3 (including relevant schedules) of the BCR, the AI determines that the total amount of the deductible holding that must be deducted from its CET1 capital is \$1.

RWA of the AI's deductible holding not subject to capital deduction (§70A(2)(b) and (d) and (3)(a))

$$RWA = (\$1 \times 250\%) = \$2.5$$

Reporting arrangements for Part IIIB of MA(BS)3

Reporting of the portion that does not constitute deductible holding

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)
							Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class XVII	Collective Investment Scheme Exposures (CIS exposures)						
17a.	Look-through approach / third-party approach						
17a(i).	Risk-weight ≤ 20%						
17a(ii).	Risk-weight > 20% - 50%						
17a(iii).	Risk-weight > 50% - 100%						
17a(iv).	Risk-weight > 100% - 250%	188	188				114
17a(v).	Risk-weight > 250% - 650%						
17a(vi).	Risk-weight > 650% - 1250%						
SUBTOTAL		188	188				214

Reporting of the portion that constitutes deductible holding and is subject to risk-weighting

(in HK\$'000)

		On-balance sheet exposures		Off-balance sheet exposures			Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class XIIC	Insignificant and Significant LAC Investments							
12f.	Insignificant LAC Investments							
12f(i)	Risk-weight 150%						150	
12f(ii)	Risk-weight 250%		1	1			250	3
12f(iii)	Risk-weight 400%						400	
12g.	Significant LAC investments							
12g(i)	Risk-weight 150%						150	
12g(ii)	Risk-weight 250%						250	
12g(iii)	Risk-weight 400%						400	
12h.	Holdings of non-capital LAC liabilities						150	
	SUBTOTAL	1	1					3

Illustrations on Reporting of Recognized Credit Risk Mitigation

All monetary figures in HK\$ million unless otherwise stated.

Case 1: On-balance sheet exposure – collateralized loan

- ◆ Exposure: A 5-year term loan of \$1,000 to an unrated corporate, which is not a small business, incorporated in Hong Kong.
- ◆ Collateral: Debt securities that are—
 - issued by a bank;
 - denominated in Euro;
 - rated AA by the Standard & Poor's; and
 - maturing in 7 years.
- ◆ The collateral is subject to daily revaluation and presently has a market value of \$1,050.

Simple Approach

1. Calculation of Risk-weighted Amount

- Exposure: Applicable risk-weight (RW) is 100% (see §61(2)(a) of the BCR).
- Collateral: An AA-rating is mapped to a RW of 20% (see §59 (Table 3) of the BCR and the LT ECAI Rating Mapping Table for Type A ECAIs).
- Credit protection covered portion: \$1,000
- Credit protection uncovered portion: \$0
- RWA of the loan calculated by substituting the RW of the corporate with the RW of the collateral: $\$1,000 \times 20\% = \$200$

2. Reporting Arrangement

Division A

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class V	Bank Exposures							
5a.	Under external credit risk assessment approach							
5a(i).	Risk-weight 20%	0	1,000,000				20	200,000
5a(ii).	Risk-weight 30%						30	
5a(iii).	Risk-weight 50%						50	
5a(iv).	Risk-weight 100%						100	
5a(v).	Risk-weight 150%						150	
5b.	Under standardized credit risk assessment approach							
5b(i).	Risk-weight 20%						20	
SUBTOTAL		0	1,000,000					200,000

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%	1,000,000	0				100	0
8b(iii).	Risk-weight 150%						150	
8c.	Rated specialized lending exposures							
8d.	Unrated specialized lending exposures							
SUBTOTAL		1,000,000	0					

Comprehensive Approach

1. Calculation of Risk-weighted Amount

- Standard supervisory haircut applicable to the collateral: 6% (see item 1 in Part 2 of Table A in Schedule 7 to the BCR).
- Standard supervisory haircut for currency mismatch: 8% (see item 3 in Table C in Schedule 7).
- As the above standard supervisory haircuts only assume a 10-day holding period, they have to be scaled up to haircuts for 20-day holding period (which is the minimum holding period assumed for secured lending transactions) using Formula 5A in §91(3) of the BCR and Formula 33 in §3 of Schedule 7:

$$H_c = H_{10} \times \sqrt{\frac{N_R + (T_M - 1)}{10}} = 6\% \times \sqrt{\frac{1 + (20 - 1)}{10}} = 8\%$$

$$H_{fx} = H_{10} \times \sqrt{\frac{N_R + (T_M - 1)}{10}} = 8\% \times \sqrt{\frac{1 + (20 - 1)}{10}} = 11\%$$

- The exposure after CRM (E*) is calculated by using Formula 2 in §87 of the BCR:

$$\begin{aligned} E^* &= \max \{0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\} \\ &= \max \{0, [1,000 \times (1 + 0\%^1) - 1,050 \times (1 - 8\% - 11\%)]\} \\ &= \max (0, 149.5) \\ &= 149.5 \end{aligned}$$

- RWA of the loan = E* × risk-weight of the unrated corporate
 $= 149.5 \times 100\%$
 $= 149.5$

2. Reporting Arrangement

Division A

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%	1,000,000	149,500				100	149,500
8b(iii).	Risk-weight 150%						150	
8c.	Rated specialized lending exposures							
8d.	Unrated specialized lending exposures							
SUBTOTAL		1,000,000	149,500					149,500

¹ As the lending involves only cash, no haircut is required for the loan exposure (i.e. H_e = 0).

Case 2: Off-balance sheet exposure - collateralized loan commitment

Now assuming that the corporate borrower in Case 1 has not yet drawn down the loan facility and the facility has an original maturity of 2 years (i.e. the borrower has to draw down the loan within 2 years). It is also assumed that the loan facility **is not an exempt commitment** and cannot be cancelled by the AI unconditionally.

Simple approach

1. Calculation of Risk-weighted Amount

- CCF applicable to a commitment with an original maturity over 1 year: **40%** (see item **12** of the Table in **§1 of Schedule 6** to the BCR).
- CEA of the commitment = $\$1,000 \times 40\% = \$400$
- RWA of the commitment (with the RW of the corporate replaced by the RW of the collateral): $\$400 \times 20\% = \$80$

2. Reporting Arrangement

Division A

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class V	Bank Exposures							
5a.	Under external credit risk assessment approach							
5a(i).	Risk-weight 20%			0	400,000		20	80,000
5a(ii).	Risk-weight 30%						30	
5a(iii).	Risk-weight 50%						50	
5a(iv).	Risk-weight 100%						100	
5a(v).	Risk-weight 150%						150	
5b.	Under standardized credit risk assessment approach							
5b(i).	Risk-weight 20%						20	
SUBTOTAL				0	400,000			80,000

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%			1,000,000	0		100	0
8b(iii).	Risk-weight 150%						150	
8c.	Rated specialized lending exposures							
8d.	Unrated specialized lending exposures							
	SUBTOTAL			1,000,000	0			0

Division B - I

(in HK\$'000)									
					Out of which:				
Item	Nature of item	Credit Conversion Factor % (B1)	Total Principal Amount (net of specific provisions) (B2)	Total Credit Equivalent Amount (B3)	Sovereign exposures (B4)	Corporate exposures (B9)	Retail exposures (B10)	Real estate exposures (B11)	CIS exposures (B12)
9	Note issuance and revolving underwriting facilities	50							
10a.	Exempt commitments	0		0		0	0		
10b.	Other commitments (CCF at 10%)	10							
10c.	Other commitments (CCF at 40%)	40	1,000,000	400,000		400,000			
11.	Off-balance sheet exposures not specified above								
11a.		100							
11b.									
11c.									
11d.									
SUBTOTAL			1,000,000	400,000		400,000			

Comprehensive Approach

1. Calculation of Risk-weighted Amount

- The standard supervisory haircuts for the collateral and the currency mismatch are scaled up from 6% to 8% and 8% to 11% respectively (as shown in Case 1 above).
- The CEA after CRM (E*) is calculated by using Formula 3 in §88 of the BCR:

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

$$= \max \{0, [1,000 \times (1 + 0\%) - 1,050 \times (1 - 8\% - 11\%)]\} \times 40\%$$

$$= 59.8$$

- RWA of the loan commitment = $E^* \times \text{risk-weight of the unrated corporate}$
 $= 59.8 \times 100\%$
 $= 59.8$

2. Reporting Arrangement

Division A

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%			1,000,000	59,800		100	59,800
8b(iii).	Risk-weight 150%						150	
8c.	Rated specialized lending exposures							
8d.	Unrated specialized lending exposures							
	SUBTOTAL			1,000,000	59,800			59,800

Division B – I

(in HK\$'000)									
Item	Nature of item	Credit Conversion Factor % (B1)	Total Principal Amount (net of specific provisions) (B2)	Total Credit Equivalent Amount (B3)	Out of which:				
					Sovereign exposures (B4)	Corporate exposures (B9)	Retail exposures (B10)	Real estate exposures (B11)	CIS exposures (B12)
9	Note issuance and revolving underwriting facilities	50							
10a.	Exempt commitments	0		0		0	0		
10b.	Other commitments (CCF at 10%)	10							
10c.	Other commitments (CCF at 40%)	40	1,000,000	400,000		400,000			
11.	Off-balance sheet exposures not specified above								
11a.		100							
11b.									
11c.									
11d.									
SUBTOTAL			1,000,000	400,000		400,000			

Case 3: Collateralized derivative contract covered by recognized guarantee

- ♦ Interest rate contract with a notional of \$1,000 with a four-year residual maturity.
- ♦ Not subject to margin agreement and netting agreement.
- ♦ The counterparty is an unrated corporate **that is not a small business**.
- ♦ The contract is covered by a guarantee of \$8 provided by a bank with an “A1” Moody’s rating.
- ♦ It is assumed that the replacement cost and potential future exposure of the contract calculated under the SA-CCR approach are \$1 and \$18 respectively.

1. Calculation of Risk-weighted Amount

Default risk exposure in respect of the interest rate contract is calculated as follows:

$$\text{Default Risk Exposure} = \alpha * (RC + PFE) = 1.4 * (1 + 18) = 26.6$$

- RW applicable to the bank guarantee: **30%**.
- RWA of credit protection covered portion = $\$8 \times 30\% = \$2.4$
- RWA of credit protection uncovered portion = $(\$26.6 - \$8) \times 100\% = \$18.6$
- Total RWA = $\$2.4 + \$18.6 = \$21$

2. Reporting Arrangement

Division A

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class V	Bank Exposures							
5a.	Under external credit risk assessment approach							
5a(i).	Risk-weight 20%						20	
5a(ii).	Risk-weight 30%			0		8,000	30	2,400
5a(iii).	Risk-weight 50%						50	
5a(iv).	Risk-weight 100%						100	
5a(v).	Risk-weight 150%						150	
5b.	Under standardized credit risk assessment approach							
5b(i).	Risk-weight 20%						20	
SUBTOTAL				0		8,000		2,400

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class VIII	Corporate Exposures							
8a.	Rated general corporate exposures							
8a(i).	Risk-weight 20%						20	
8b.	Unrated general corporate exposures							
8b(i).	Risk-weight 85%						85	
8b(ii).	Risk-weight 100%			1,000,000		18,600	100	18,600
8b(iii).	Risk-weight 150%						150	
8c.	Rated specialized lending exposures							
8d.	Unrated specialized lending exposures							
	SUBTOTAL			1,000,000		18,600		18,600

Division B - II

		(in HK\$'000)						
Item	Nature of item							
12.	Unmargined contracts not covered by recognized netting							
						Out of which:		
	Type of Contract	Total Notional Amount (B13)	Total Replacement Cost (B14)	Total Potential Future Exposure (B15)	Total Default Risk Exposure (B16)	Sovereign exposures (B17)	Corporate exposures (B22)	Retail exposures (B23)
12a.	Interest rate contracts	1,000,000	1,000	18,000	26,600		26,600	
12b.	Exchange rate contracts							
12c.	Credit-related derivative contracts							
12d.	Equity-related derivative contracts							
12e.	Commodity-related derivative contracts							
	SUBTOTAL	1,000,000	1,000	18,000	26,600		26,600	

Examples of Reporting of Unhedged Credit Exposures in Form MA(BS)3(IIIb)

An AI has the following unhedged credit exposures whose applicable risk-weights should be multiplied by a multiplier of 1.5, subject to a cap of 150%. All the unhedged credit exposures are not covered by any recognized CRM.

	Exposure class	On-balance sheet	Off-balance sheet		Risk-weight (before multiplier)
		Principal amount (HK\$'000)	Principal amount (HK\$'000)	Credit equivalent amount (HK\$'000)	
Exposure A	Other retail exposure	100			100%
Exposure B	Regulatory retail exposure	200			75%
Exposure C	Regulatory retail exposure		125	50	75%
Exposure D	Regulatory residential real estate exposure	5,000			30%
Exposure E	Regulatory residential real estate exposure	3,000			60%

1. Retail exposures - calculations of weighted average risk-weight and risk-weighted amount of unhedged credit exposures

- Total exposure amount of unhedged credit exposures to be reported in item 9d under Class IX Retail Exposures

$$= 100 + 200 + 50$$

$$= 350$$

- Total risk-weighted amount to be reported in column A7 of item 9d

$$= (200 + 50) * 75\% * 1.5 + 100 * 100\% * 1.5$$

$$= 431.25$$

- The risk-weight to be reported in column A6 of item 9d

$$= \frac{431.25}{350}$$

$$= 123.21\%$$

or alternatively

$$= \frac{200+50}{350} * 75\% * 1.5 + \frac{100}{350} * 100\% * 1.5$$

$$= 123.21\%$$

2. Reporting arrangement

Division A

(in HK\$'000)

Item	Nature of item	On-balance sheet exposures		Off-balance sheet exposures			Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
		Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class IX	Retail Exposures							
9a.	Regulatory retail exposures to transactors							
9a(i).	Risk-weight 45%						45	
9a(ii).	Risk-weight 75%						75	
9b.	Regulatory retail exposures to obligors other than transactors						75	
9c.	Other retail exposures						100	
9d.	Unhedged credit exposures	300	300	125	50		123	431
SUBTOTAL		300	300	125	50			431

Division B-I

(in HK\$'000)

Item Nature of item		Credit Conversion Factor % (B1)	Total Principal Amount (net of specific provisions) (B2)	Total Credit Equivalent Amount (B3)	Out of which:								
					Sovereign exposures (B4)	PSE exposures (B5)	MDB exposures and unspecified multilateral body exposures (B6)	Bank exposures (B7)	QNBFI exposures (B8)	Corporate exposures (B9)	Retail exposures (B10)	Real estate exposures (B11)	CIS exposures (B12)
10a.	Exempt commitments	0		0						0	0		
10b.	Other commitments (CCF at 10%)	10											
10c.	Other commitments (CCF at 40%)	40	125	50							50		
11.	Off-balance sheet exposures not specified above												
11a.		100											
11b.													
11c.													
11d.													
SUBTOTAL			125	50							50		

3. Regulatory residential real estate exposures - calculations of weighted average risk-weight and risk-weighted amount of unhedged credit exposures

- Total exposure amount of unhedged credit exposures to be reported in item 11c under Class XIA Regulatory Residential Real Estate Exposures

$$= 5000 + 3000$$

$$= 8000$$

- Total risk-weighted amount to be reported in column A7 of item 11c

$$= 5000 * 30\% * 1.5 + 3000 * 60\% * 1.5$$

$$= 4950$$

- The risk-weight to be reported in column A6 of item 11c

$$= \frac{4950}{8000}$$

$$= 61.88\%$$

or alternatively

$$= \frac{5000}{8000} * 30\% * 1.5 + \frac{3000}{8000} * 60\% * 1.5$$

$$= 61.88\%$$

4. Reporting arrangement

Division A

(in HK\$'000)

		On-balance sheet exposures		Off-balance sheet exposures			Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class XIA	Regulatory Residential Real Estate Exposures							
11a.	Not materially dependent on cash flows generated by mortgaged properties							
11a(i).	Risk-weight 20%						20	
11a(ii).	Risk-weight 25%						25	
11a(iii).	Risk-weight 30%						30	
11a(iv).	Risk-weight 40%						40	
11a(v).	Risk-weight 50%						50	
11a(vi).	Risk-weight 70%						70	
11b.	Materially dependent on cash flows generated by mortgaged properties							
11b(i).	Risk-weight 30%						30	
11b(ii).	Risk-weight 35%						35	
11b(iii).	Risk-weight 45%						45	
11b(iv).	Risk-weight 60%						60	
11b(v).	Risk-weight 75%						75	
11b(vi).	Risk-weight 105%						105	
11c.	Unhedged credit exposures	8000	8000				62	4950
11d.	Exposures subject to risk-weights specified by overseas regulators							
SUBTOTAL		8000	8000					4950

Example of Reporting of Retail Exposures in Form MA(BS)3(IIIb)

This example illustrates the application of the definition of “transactor” at facility level and the reporting of multiple facilities granted to a single obligor in Division A of Form MA(BS)3(IIIb).

An AI has granted the following 3 clean credit facilities to an obligor, all of which are regulatory retail exposures and none of the facilities are unhedged credit exposures.

During the previous 12 months, the obligor has not made any drawdown under Facility A and there are 3 scheduled repayment dates of Facility B on which the obligor only paid the minimum payment amounts.

Facilities		On-balance sheet exposure (drawn amount) Principal amount (HK\$'000)	Off-balance sheet exposure (undrawn amount) Credit equivalent amount (HK\$'000)	Transactor in respect of the facility?	Risk-weight	Relevant BCR section
Facility A	Overdraft facility	0	10	Yes	45%	64(1)(b)(i)
Facility B	Credit card facility	200	15	No	75%	64(1)(b)(ii)
Facility C	Personal instalment loan	300	0	Not applicable	75%	64(1)(b)(ii)

Reporting arrangement in Class IX Retail Exposures

- Facility A should be reported in Item 9a(i) (see paragraph 25(b)(i) of Completion Instructions for MA(BS)3 Part IIIb (CIs)).
- Facility B should be reported in Item 9b (see paragraph 25(b)(ii) of CIs).
- Facility C should be reported in Item 9a(ii) (see paragraph 25(b)(iii)(A) of CIs).

Division A

		On-balance sheet exposures		Off-balance sheet exposures			(in HK\$'000)	
Item	Nature of item	Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)	Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
Class IX	Retail Exposures							
9a.	Regulatory retail exposures to transactors							
9a(i).	Risk-weight 45%			100	10		45	5
9a(ii).	Risk-weight 75%	300	300				75	225
9b.	Regulatory retail exposures to obligors other than transactors	200	200	150	15		75	161
9c.	Other retail exposures						100	
9d.	Unhedged credit exposures							
SUBTOTAL		500	500	250	25			391

Regulatory real estate exposure secured by both residential properties and commercial properties - Illustrations of LTV calculations based on valuations or floor areas

Case 1: A single loan secured by a pool of residential units and commercial units in different locations

- ♦ Exposure: A single loan of HKD 160 mil. to a corporate that is secured by a pool of 26 properties comprises both residential units and commercial units (all for rental) in 10 different locations on Hong Kong Island. The valuations of the units at the time of the origination of the loan are as follows:

Properties	Total valuation (in HKD mil.)
11 residential units	88.8
7 office units	135.0
8 shop units	156.0
Total:	379.8

- ♦ The source of income of the corporate is in Hong Kong dollar.

1. Calculation of Risk-weighted Amount

The loan is split into a residential real estate exposure and a commercial real estate exposure according to the proportion determined based on the respective total valuation of each type of property.

Properties	Total valuation (in HKD mil.)	Proportion
11 residential units	88.8	23.4%
15 commercial units	291.0	76.6%
Total:	379.8	100%

Regulatory residential real estate (RRE) exposures that are not non-IPRE exposures

$$\text{Loan amount} = 160 \times 23.4\% = 37.44$$

$$\text{LTV} = \frac{37.44}{88.8} = 42.2\%$$

Risk-weight: 30% (see Table 7 of BCR §65B(3))

$$\text{RWA (regulatory RRE)} = 37.44 \times 30\% = 11.232 \text{ mil.}$$

Regulatory commercial real estate (CRE) exposures that are not non-IPRE exposures

$$\text{Loan amount} = 160 \times 76.6\% = 122.56$$

$$\text{LTV} = \frac{122.56}{291} = 42\%$$

Risk-weight: 70% (see Table 9 of BCR §65C(3))

$$\text{RWA (regulatory CRE)} = 122.56 \times 70\% = 85.792 \text{ mil}$$

2. Reporting Arrangement

(in HK\$'000)

Item	Nature of item	On-balance sheet exposures		Off-balance sheet exposures			Risk-weight %	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
		Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class XIA	Regulatory Residential Real Estate Exposures							
11a.	Not materially dependent on cash flows generated by mortgaged properties							
11a(i).	Risk-weight 20%						20	
...	...							
11a(vi).	Risk-weight 70%						70	
11b.	Materially dependent on cash flows generated by mortgaged properties							
11b(i).	Risk-weight 30%	37,440	37,440				30	11,232
...	...							
11b(vi).	Risk-weight 105%						105	
11c.	Unhedged credit exposures							
11d.	Exposures subject to risk-weights specified by overseas regulators							
SUBTOTAL		37,440	37,440					11,232
Class XIB	Regulatory Commercial Real Estate (CRE) Exposures							
11e.	Not materially dependent on cash flows generated by mortgaged properties							
11e(i).	Risk-weight ≤ 20%							
...	...							
11e(iv).	Risk-weight > 100%							
11f.	Materially dependent on cash flows generated by mortgaged properties							
11f(i).	Risk-weight 70%	122,560	122,560				70	85,792
11f(ii).	Risk-weight 90%						90	
11f(iii).	Risk-weight 110%						110	
SUBTOTAL		122,560	122,560					85,792

Case 2: A single loan secured by a whole block of composite (residential and commercial) building

- ♦ Exposure: A syndicated loan of HKD 1,690 mil. in which the reporting AI's participated amount is HKD 169 mil. (i.e. the AI's share in such loan is 10%).
- ♦ The syndicated loan is secured by a composite building comprises apartments, offices and a commercial car-parking basement (all for rental) with details as follows:

Properties	Gross floor area (sq. m.)
23 storeys of apartments	18,100
33 storeys of offices	66,200
3-storey commercial car-parking basement	6,100
Total:	90,400

- ♦ The valuation of the whole building at the time of origination of the loan is HKD 3,380 mil. where separate valuations for the residential portion and the commercial portion of the building are not available.

1. Calculation of Risk-weighted Amount

If there is no other more relevant information (e.g. actual annual cash flows generated by, or the estimated annual rental value of, each portion of the building) that can be used as the basis for splitting the AI's participated amount in the loan into a residential real estate exposure and a commercial real estate exposure, the AI may split its participated amount according to the proportion determined based on the respective floor areas of the residential portion and the commercial portion of the building.

Properties	Gross floor area (sq. m.)	Proportion
Residential portion	18,100	20%
Commercial portion	72,300	80%
Total:	90,400	100%

Regulatory residential real estate (RRE) exposures that are not non-IPRE exposures

Residential portion of the syndicated loan = $1690 \times 20\% = 338$

Valuation of the residential portion = $3380 \times 20\% = 676$

$$\text{LTV} = \frac{338}{676} = 50\%$$

Risk-weight: 30% (see Table 7 of BCR §65B(3))

RWA (regulatory RRE) of the AI's participated amount

$$= 338 \times 10\% \times 30\%$$

= **10.14 mil.**

Regulatory commercial real estate (CRE) exposures that are not non-IPRE exposures

Commercial portion of the syndicated loan = $1690 \times 80\% = 1352$

Valuation of the commercial portion = $3380 \times 80\% = 2704$

$$\text{LTV} = \frac{1352}{2704} = 50\%$$

Risk-weight: 70% (see Table 9 of BCR §65C(3))

RWA (regulatory CRE) of the AI's participated amount

= $1352 \times 10\% \times 70\%$

= **94.64 mil.**

2. Reporting Arrangement

(in HK\$'000)

Item	Nature of item	On-balance sheet exposures		Off-balance sheet exposures			Risk-weight % (A6)	Risk-weighted Amount (A7) = (A2+A4+A5) x A6
		Principal Amount (A1)	Principal Amount after CRM (A2)	Principal Amount / Notional Amount (A3)	Credit Equivalent Amount after CRM (A4)	Default Risk Exposure after CRM (A5)		
Class XIA	Regulatory Residential Real Estate Exposures							
11a.	Not materially dependent on cash flows generated by mortgaged properties							
11a(i).	Risk-weight 20%						20	
...	...							
11a(vi).	Risk-weight 70%						70	
11b.	Materially dependent on cash flows generated by mortgaged properties							
11b(i).	Risk-weight 30%	33,800	33,800				30	10,140
...	...							
11b(vi).	Risk-weight 105%						105	
11c.	Unhedged credit exposures							
11d.	Exposures subject to risk-weights specified by overseas regulators							
	SUBTOTAL	33,800	33,800					10,140
Class XIB	Regulatory Commercial Real Estate (CRE) Exposures							
11e.	Not materially dependent on cash flows generated by mortgaged properties							
11e(i).	Risk-weight ≤ 20%							
...	...							
11e(iv).	Risk-weight > 100%							
11f.	Materially dependent on cash flows generated by mortgaged properties							
11f(i).	Risk-weight 70%	135,200	135,200				70	94,640
11f(ii).	Risk-weight 90%						90	
11f(iii).	Risk-weight 110%						110	
	SUBTOTAL	135,200	135,200					94,640

Completion Instructions

Return of Capital Adequacy Ratio Part IIIc – Risk-weighted Amount for Credit Risk Internal Ratings-based Approach Form MA(BS)3(IIIc)

Introduction

1. Form MA(BS)3(IIIc) (IRB return) of Part III should be completed by each authorized institution incorporated in Hong Kong (AI) using the ***internal ratings-based approach (IRB approach)*** to calculate ***credit risk*** under Part 6 of the Banking (Capital) Rules (BCR).
2. These completion instructions contain the following four sections:

<u>Section A</u>	<u>General Instructions</u>	<u>Paragraphs</u>
I	Scope of the IRB return	5-6
II	Classification of exposures	7-8
III	Choice of IRB calculation approaches	9
IV	Structure of the IRB return	10-12
V	Definitions and clarification	13-28
<u>Section B</u>	<u>Calculation of Risk-weighted Amount for Credit Risk under IRB Approach</u>	
I	Risk-weighted amount under IRB approach	29-32
II	General requirements for all IRB classes	33-41
III	Specific requirements for certain exposure portfolios	42-46
IV	Corporate, sovereign and bank exposures	47-72
V	Retail exposures	73-83
VI	CIS exposures	84-87
VII	Other exposures	88-90
VIII	Purchased receivables	91-94
IX	Leasing transactions	95-96
X	Securities financing transactions	97-101
XI	Credit-linked notes	102
XII	Calculation of risk-weighted amount of off-balance sheet exposures	103-124
XIII	Credit risk mitigation	125-132

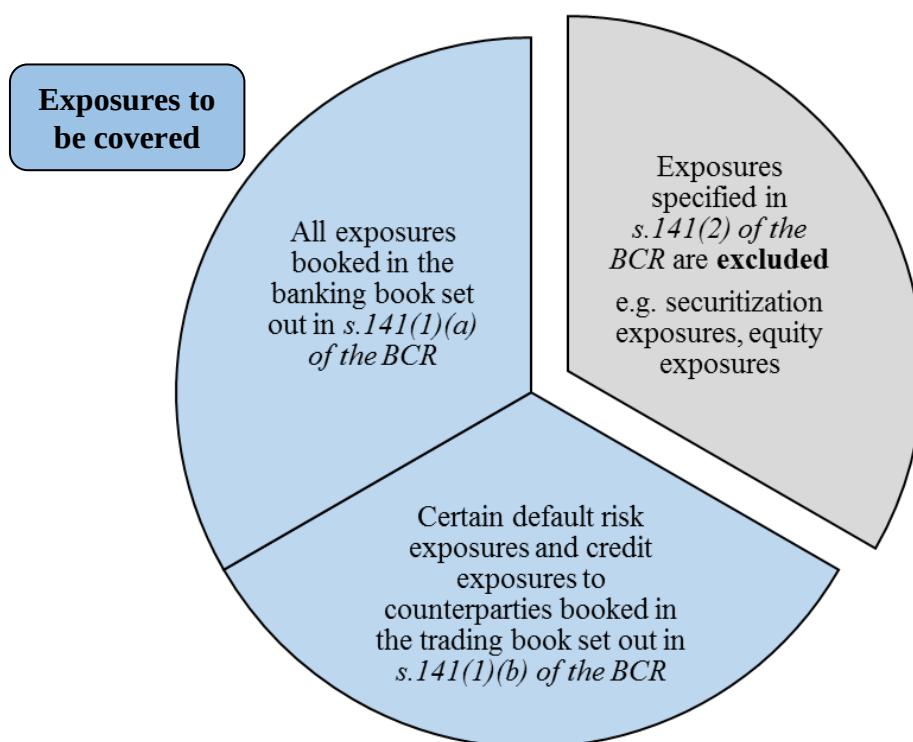
<u>Section C</u>	<u>Treatment of Expected Losses and Eligible Provisions under IRB Approach</u>	
I	Determination of total EL amount	133-134
II	Determination of total eligible provisions	135-138
III	Treatment of total EL amount and total eligible provisions	139-141
<u>Section D</u>	<u>Specific Instructions</u>	
	Form IRB_TOTCRWA	142
	Form IRB_CSB	143
	Form IRB_SLSLOT	144
	Form IRB_RETAIL	145
	Form IRB_CIS	146
	Form IRB_OTHER	147
	Form IRB_FIRBLGD	148-149
	Form IRB_AIRBLGD	150-151
	Form IRB_RETAILIRBLGD	152-153
	Form IRB_OBSND	154
	Form IRB_OBSD_SACCR	155
	Form IRB_OBSD_SFT_N_IMM	156
	Form IRB_OBSD_IMM	157
	Form IRB_ELEP	158

3. Section A gives the general instructions and definitions for the reporting of the IRB return. Section B provides the specific instructions for calculating the **risk-weighted amount** for each **IRB class/subclass** under the IRB approach. Section C explains the calculation of **total EL amount** and **total eligible provisions** and the capital treatment for the difference between these two items under the IRB approach. Section D explains the specific reporting instructions for each reporting Form, with illustrative examples provided in **Annex IIIc-A**.
4. This return and its completion instructions should be read in conjunction with the BCR and the relevant supervisory policy/guidance on the capital adequacy framework.

Section A: General Instructions

I. Scope of the IRB Return

5. A reporting AI is required to report in this return its credit **exposures** subject to the IRB approach in accordance with section 141 of the BCR.



6. To avoid doubt, a reporting AI using a combination of the **standardized (credit risk) approach (STC approach)** and the IRB approach should report those exposures under the STC approach in Form MA(BS)3(IIIb) according to the reporting requirements.

II. Classification of Exposures

7. In reporting the IRB return, the reporting AI should classify each of its credit exposures into one of the six IRB classes and then sub-classify each of these exposures into one of the **twenty six** IRB subclasses as shown in **Table 16 to section 142 of the BCR and replicated below** in accordance with the definitions given in paragraphs 13 to **21**:

IRB Class		IRB Subclass	
1.	Corporate exposures	(1)	Specialized lending (project finance)
		(2)	Specialized lending (object finance)
		(3)	Specialized lending (commodities finance)
		(4)	Specialized lending (income-producing real estate)
		(5)	Specialized lending (high-volatility commercial real estate)
		(6)	Small-and-medium sized corporates
		(7)	Large corporates
		(8)	Financial institutions treated as corporates
		(9)	Other corporates
2.	Sovereign exposures	(10)	Sovereigns
		(11)	Sovereign foreign public sector entities
		(12)	Multilateral development banks
3.	Bank exposures	(13)	Banks (excluding covered bonds)
		(14)	Qualifying non-bank financial institutions
		(15)	Public sector entities (excluding sovereign foreign public sector entities)
		(16)	Unspecified multilateral bodies
		(17)	Covered bonds
4.	Retail exposures	(18)	Small business retail exposures
		(19)	Residential mortgages to individuals
		(20)	Residential mortgages to property-holding shell companies
		(21)	Qualifying revolving retail exposures (transactor)
		(22)	Qualifying revolving retail exposures (revolver)
		(23)	Other retail exposures to individuals
5.	CIS exposures	(24)	CIS exposures

IRB Class		IRB Subclass	
6.	Other exposures	(25)	Cash items
		(26)	Other items

8. Purchased receivables do not form an IRB class on their own and should be classified as corporate exposures or retail exposures, as the case requires.

III. Choice of IRB Calculation Approaches

9. Under the IRB approach, a reporting AI may use the following IRB calculation approaches (setting out in Table 17 to section 147 of the BCR) for each of the six IRB classes, provided that the relevant criteria and qualifying conditions are met:

IRB class	IRB calculation approaches available
Corporate exposures	Foundation IRB approach
	Advanced IRB approach
	Supervisory slotting criteria approach
Sovereign exposures	Foundation IRB approach
	Advanced IRB approach
Bank exposures	Foundation IRB approach
Retail exposures	Retail IRB approach
CIS exposures	CIS calculation approach
Other exposures	Specific risk-weight approach

IV. Structure of the IRB Return

10. The IRB return consists of the following six divisions:

Division A: Summary of Risk-weighted Amount for Credit Risk under IRB Approach – showing the risk-weighted amount by IRB class/subclass and a breakdown of the risk-weighted amount for selected types of exposures;

Division B: Risk-weighted Amount by IRB Class/Subclass – providing information on the **credit risk components** and risk-weighted amount of individual IRB subclasses or, where applicable, individual portfolio types;

Division C: LGD for Corporate, Sovereign, Bank and Retail Exposures – providing supplementary information to Division B on LGD of individual IRB subclasses or, where applicable, individual portfolio types for **corporate, sovereign and bank** exposures under the **foundation IRB approach** or corporate and sovereign exposures under the **advanced IRB approach**;

and retail exposures under the **retail IRB approach**;

Division D: Off-Balance Sheet Exposures (Other than Default Risk Exposure in respect of Derivative Contracts and SFTs) under IRB Approach – providing supplementary information to Division B by giving a breakdown of off-balance sheet exposures (other than derivative contracts and SFTs) for corporate, sovereign, bank and retail exposures;

Division E: Default Risk Exposures in respect of Derivative Contracts and SFTs – providing supplementary information to Division B by giving a breakdown of derivative contracts and SFTs for corporate, sovereign, bank and retail exposures; and

Division F: EL-EP Calculation under IRB Approach – providing a breakdown of the respective **EL amount** and **eligible provisions** for corporate, sovereign, bank and retail exposures and calculating the difference between the two, if any, for the computation of the capital base.

11. There are multiple Forms in Divisions B, C and E of this return for the reporting of different IRB subclasses of exposures or exposures subject to different calculation methods. A list showing the reporting Forms under various divisions is given at **Annex IIIc-B**. For Divisions A, D and F, a reporting AI is required to report the positions of all relevant IRB classes/subclasses in one single Form. For Divisions B and C, the position of each IRB subclass (or, where applicable, each portfolio type) should be reported separately in the Form applicable to that IRB subclass (or that portfolio type). For Division E, the positions should be reported separately according to the methods the reporting AI adopts for the calculation of **default risk exposures** in respect of derivative contracts and SFTs.
12. Where a reporting AI uses more than one **rating system** for an IRB class/subclass¹, the institution should split the exposures into portfolios according to the rating systems used and report each portfolio in one Form under Division B (and, where applicable, Division C). In addition, the reporting AI should provide a brief description of the nature of the portfolio under the item “portfolio type” of each separate Form. A reporting AI should consult with the HKMA on the appropriate reporting treatment if it has difficulties to report its exposures by portfolio in the above manner.

V. Definitions and Clarification

(A) Definition of IRB Classes and Subclasses

Corporate Exposures

13. A reporting AI should, **according to sections 143 and 197 of the BCR**, classify each of its exposures to corporates, including purchased corporate receivables, into one of the following IRB subclasses:

¹ For example, a reporting AI may have more than one internal rating system for its qualifying revolving retail exposures (**revolver**), such as having separate scorecards for credit card lending and personal revolving loans.

IRB subclass	BCR reference
(i) specialized lending (SL) (<i>project finance</i>)	Section 143(1), (2), (4A), (4B), (4C) and (6)
(ii) SL (<i>object finance</i>)	
(iii) SL (<i>commodities finance</i>)	
(iv) SL (<i>income-producing real estate</i>)	
(v) SL (high-volatility commercial real estate) (<i>HVCRE exposures</i>)	
(vi) large corporates	Section 143(3A), (3B)
(vii) financial institutions treated as corporates	Section 143(3C)
(viii) small-and-medium sized corporates (SME corporates)	Section 143(3), (4)
(ix) other corporates	Section 143(5)

Sovereign Exposures

14. According to section 142 of the BCR, sovereign exposures² include exposures which fall within one of the following IRB subclasses:

- (i) sovereigns;
- (ii) **sovereign foreign public sector entities** (SFPSEs); and
- (iii) multilateral development banks (MDBs).

Bank Exposures

15. According to section 142 of the BCR, bank exposures include exposures which fall within one of the following IRB subclasses:

- (i) banks (**excluding covered bonds**);
- (ii) **qualifying non-bank financial institutions**;
- (iii) **public sector entities** (PSEs) that are not SFPSEs;
- (iv) **unspecified multilateral bodies**; and
- (v) **covered bonds**.

² Holdings of notes and coins should be reported as cash items under the IRB class of other exposures (see paragraph 21).

Retail Exposures

16. In accordance with section 144(1) of the BCR, exposures to individuals which, regardless of exposure size, are managed by the reporting AI on a pooled or portfolio basis should be classified as retail exposures. Retail exposures to individuals usually include **residential mortgage loans**, revolving credits (e.g. credit cards and overdrafts) and other personal loans (e.g. instalment loans, auto loans, tax loans, personal finance and other retail credits with similar characteristics). For those exposures which are not managed by the reporting AI on a pooled or portfolio basis, an institution should treat them as corporate exposures as per section 144(6) of the BCR.
17. Exposures to corporates may also be classified as retail exposures, provided that the criteria set out in section 144(2) and (3)(b) of the BCR are met.
18. A reporting AI should, in accordance with sections 144 and 197 of the BCR, classify each of its retail exposures, including purchased retail receivables, into one of the following IRB subclasses:

IRB subclass	BCR reference
(i) small business retail exposures	Section 144(2)
(ii) residential mortgages (RM) to individuals	Section 144(3)
(iii) RM to property-holding shell companies	
(iv) qualifying revolving retail exposures (QRRE) (transactor)	Section 144(4)
(v) QRRE (revolver)	Section 144(4A)
(vi) other retail exposures to individuals	Section 144(5)

CIS Exposures

19. A reporting AI must use the CIS calculation approach to calculate the risk-weighted amount of a CIS exposure not constituting a **deductible holding** in accordance with Part 6B of the BCR.
20. For a CIS exposure constituting a deductible holding that is not deducted from the capital base of the reporting AI under Division 4 of Part 3 of the BCR, the institution must calculate the risk-weighted amount of the exposure in accordance with section 183 of the BCR.

Other Exposures

21. According to section 146 of the BCR, a reporting AI should classify under the IRB class of other exposures any of its exposures which do not fall within the IRB class of corporate, sovereign, bank, retail or **CIS** exposures. These exposures include:
- (i) **cash items**, the types of exposures covered are set out in the table under paragraph 88; and

- (ii) **other items**, which are other exposures that do not fall within the IRB subclass of cash items, e.g. premises, plant and equipment and other fixed assets for own use (see paragraph 90).

(B) Clarification

- 22. Figures of percentage or year should be rounded up to two decimal points.
- 23. A reporting AI should report in the columns of “Exposures before recognized guarantees / credit derivative contracts” the **EAD** of its on-balance sheet exposures and off-balance sheet exposures before adjusting for the credit risk mitigating effects of any **recognized guarantee** and **recognized credit derivative contract**. For instance:
 - (i) in respect of on-balance sheet exposures, the institution should report the EAD of such exposures both before and after adjusting for the credit risk mitigating effects of any **recognized netting**;
 - (ii) in respect of off-balance sheet exposures (other than derivative contracts and SFTs), the institution should report the **credit equivalent amount** of such exposures; and
 - (iii) in respect of off-balance sheet exposures which are derivative contracts and SFTs, the institution should report the default risk exposures of such transactions after adjusting for the credit risk mitigating effects of any recognized netting.
- 24. A reporting AI should report in the columns of “Exposures after recognized guarantees / credit derivative contracts” the EAD of its on-balance sheet exposures and off-balance sheet exposures after adjusting for the credit risk mitigating effects of any recognized netting, recognized guarantee and recognized credit derivative contract.
- 25. **Principal amount**, in respect of an off-balance sheet exposure, should be reported without deduction of **specific provisions** and partial write-offs.
- 26. Double counting of exposures arising from the same contract or transaction should be avoided. For example, only the undrawn portion of a loan commitment should be reported as an off-balance sheet exposure while the actual amount drawn should be reported as an on-balance sheet exposure. **Trade-related contingencies**, such as trust receipts and shipping guarantees, which have already been reported as letters of credit issued or loans against import bills etc. should not be counted again as off-balance sheet exposures.
- 27. In certain cases, counterparty default risk exposures arising from derivative contracts may already be reflected, in part, on the reporting AI’s balance sheet. For example, a reporting AI may have recorded the fair value of a derivative contract on its balance sheet. To avoid double counting, such amount should be excluded from on-balance sheet exposures and treated as off-balance sheet exposures for the purposes of this return.
- 28. The accrued interest of a credit exposure should form part of the EAD of the credit

exposure. A reporting AI should therefore classify and risk-weight the accrued interest receivables in the same way as the principal amount of the respective credit exposures.

Section B: Calculation of Risk-weighted Amount for Credit Risk under IRB Approach

I. Risk-weighted Amount under IRB Approach

29. The IRB approach is based on measures of unexpected loss (UL) and **expected loss (EL)**. The **risk-weight functions** in this section produce capital requirements for the UL portion. EL is treated separately as outlined in Section C.
30. A reporting AI should calculate the risk-weighted amount for the UL of its credit exposures under the IRB approach as follows:
- (i) the institution should calculate the risk-weighted amount of each exposure (except CIS exposures to which **item (ii) applies** and counterparty credit risk exposures to which **item (iii)** applies) by multiplying the EAD of each such exposure by the relevant risk-weight;
 - (ii) **in respect of a CIS exposure** not constituting a deductible holding, the institution must calculate its risk-weighted amount in accordance with Part 6B of the BCR;
 - (iii) in respect of derivative contracts or SFTs, the institution must calculate the risk-weighted amount of the counterparty credit risk exposure -
 - (a) **if the institution has an IMM(CCR) approval³ for its transactions or contracts, by aggregating -**
 - the **IMM(CCR) risk-weighted amount** of the transactions or contracts concerned that are covered by the IMM(CCR) approval; **and**
 - **the sum of the SA-CCR risk-weighted amount⁴ or SFT risk-weighted amount⁵** of the transactions or contracts concerned that are (i) not covered by the IMM(CCR) approval; or (ii) covered by the IMM(CCR) approval but fall within section 10B(5) or (7) of the BCR;
 - (b) **if the institution does not have an IMM(CCR) approval for any of its transactions or contracts, by aggregating -**
 - **the sum of the SA-CCR risk-weighted amount; and**
 - the SFT risk-weighted amount;
 - (iv) the institution should aggregate the risk-weighted amount figures derived **from items (i), (ii) and (iii) to arrive at** the total risk-weighted amount for credit risk under the IRB approach.

³ The term “IMM(CCR)” in “IMM(CCR) approval” refers to the **internal models (counterparty credit risk) approach (IMM(CCR) approach)** - see definitions in section 2(1) of the BCR.

⁴ The term “SA-CCR” in “SA-CCR risk-weighted amount” refers to the **standardized (counterparty credit risk) approach** - see definition in section 2(1) of the BCR.

⁵ See the definition of “SFT risk-weighted amount” in section 139(1) of the BCR.

31. For the purposes of paragraph 30(iii), a reporting AI may, in the case of a default risk exposure in respect of **long settlement transactions** (LSTs), determine the exposure's relevant risk-weight using the STC approach on a permanent basis.
32. A reporting AI may reduce the risk-weighted amount of an exposure by taking into account the effect of any **recognized credit risk mitigation** through adjusting the PD, LGD or EAD, as the case may be, in accordance with Part XIII of this section.

II. General Requirements for All IRB Classes

(A) General Requirements

33. There are three key elements for the calculation of the risk-weighted amount for the UL portion under the IRB approach, including:
- (i) credit risk components – these are estimates of PD, LGD, EAD, EL and M made by a reporting AI, or *supervisory estimates* specified in the BCR;
 - (ii) risk-weight functions – these are the formulae by which credit risk components are transformed into risk-weighted amount and therefore capital requirements; and
 - (iii) minimum requirements - the minimum standards which a reporting AI should meet for the use of the IRB approach⁶.
34. A reporting AI should use the risk-weight functions provided in sections 156 and 176 of the BCR for the purpose of calculating the risk-weighted amount, unless otherwise specified. In applying such risk-weight functions, PD and LGD are measured as decimals, EAD is measured in HK\$ and M is measured in years.
35. For the purposes of calculating the EAD of an exposure (whether held on- or off-balance sheet) that is measured at fair value, a reporting AI should comply with the prudent valuation and valuation adjustment requirements in section 4A of the BCR.

(B) Corporate, Sovereign and Bank Exposures

36. Under the foundation IRB approach, section 156(1)(a) of the BCR indicates a reporting AI should provide its own estimates of PD associated with each of its **obligor grades**, but should use supervisory estimates for other credit risk components (i.e. LGD, EAD and M⁷).
37. Under the advanced IRB approach, a reporting AI should provide its own estimates of PD, LGD and EAD and calculate M according to section 156(1)(b) of the BCR.

⁶ Please refer to Part 6 and Schedule 2 of the BCR and the relevant supervisory policy/guidance relating to the IRB approach.

⁷ See footnote 13 for an optional alternative treatment for M.

38. In respect of SL under the supervisory slotting criteria approach, a reporting AI should, in accordance with section 156(1)(c) of the BCR, apply the supervisory estimate of a risk-weight that is applicable to a supervisory rating grade in calculating the risk-weighted amount of such SL.

(C) **Retail Exposures**

39. Under the **retail IRB approach**, section 170(1) of the BCR sets out that a reporting AI should provide its own estimates of PD, LGD and EAD associated with each pool of retail exposures. There is no distinction between a foundation approach and an advanced approach for retail exposures.

(D) **CIS Exposures**

40. The CIS calculation approach must be used to calculate a reporting AI's risk-weighted amount of CIS exposures.

(E) **Other Exposures**

41. Under the **specific risk-weight approach**, a reporting AI should apply a specific risk-weight applicable to an exposure which falls within the IRB subclass of cash items (see paragraph 88) or the IRB subclass of other items (see paragraph 90) in calculating the risk-weighted amount of the exposure according to sections 195 and 196 of the BCR.

III. **Specific Requirements for Certain Exposure Portfolios**

(A) **Purchased Receivables** (sections 197 to 200 of the BCR)

42. "Purchased receivables" straddles corporate and retail IRB classes. For purchased corporate receivables, both the foundation IRB approach and the advanced IRB approach are available subject to the relevant minimum requirements being met. Like other retail exposures, there is no distinction between a foundation approach and an advanced approach for purchased retail receivables. For purchased receivables (whether corporate or retail), a reporting AI is required to calculate the risk-weighted amount for default risk and, if material, **dilution risk** of such purchased receivables (see Part VIII of this section).

(B) **Leasing Transactions** (section 201 of the BCR)

43. There is a distinct treatment for calculating the risk-weighted amount of exposures arising from leases with **residual value risk** (see Part IX of this section). Leases without any residual value risk will be accorded the same treatment as exposures collateralized by the underlying leased assets.

(C) **Securities Financing Transactions (SFTs)** (section 202 of the BCR)

44. The calculation of the risk-weighted amount for SFTs depends on the economic substance of the transaction and whether the transaction is booked in the **banking book**

or the **trading book** (see Part X of this section).

(D) Credit-linked Notes (section 202A of the BCR)

45. The calculation of the risk-weighted amount for a **credit-linked note** depends on the risk-weight attributable to the **reference obligation** or basket of reference obligations of the note, the note issuer, and the reporting AI's maximum liability under the note (see Part XI of this section).

(E) IPO financing (section 202B of the BCR)

46. A reporting AI may opt to apply section 64A of the BCR to its relevant corporate, bank and retail exposures arising from **IPO** financing (pursuant to section 202B of the BCR). Under this option, the exposures arising from IPO financing eligible for 0% risk-weight should be reported as a separate portfolio type of the respective IRB subclass, by distinguishing such exposures from others as "IPO financing under BCR202B" in Divisions B and C. To attain a 0% risk-weight, the reporting AI should input a LGD of 0% and provide its own estimates or supervisory estimates for other credit risk components as appropriate. Note that this treatment is not applicable to any outstanding loan amounts after payments for allotted securities are made to the relevant receiving bank.

IV. Corporate, Sovereign and Bank Exposures

(A) Risk-weight Function for Derivation of Risk-weighted Amount

47. The calculation of the risk-weighted amount of a corporate, sovereign or bank exposure is dependent on the estimates of PD, LGD, EAD and, in some cases, M, of a given exposure.

(a) Non-defaulted exposures

48. Subject to paragraph 59, for corporate, sovereign and bank exposures that are not in default, the risk-weighted amount is calculated by Formula 16 to section 156 of the BCR replicated as follows^{8, 9}:

Correlation (R)

$$= 0.12 \times (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50)) + 0.24 \times [1 - (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50))]$$

Maturity adjustment (b)

⁸ EXP denotes exponential and ln denotes the natural logarithm.

⁹ N(x) denotes the cumulative distribution function for a standard normal random variable (i.e. the probability that a normal random variable with mean zero and variance of one is less than or equal to x). G(z) denotes the inverse cumulative distribution function for a standard normal random variable (i.e. the value of x such that N(x) = z). The normal cumulative distribution function and the inverse of the normal cumulative distribution function are, for example, available in Excel as the functions NORMSDIST and NORMSINV.

$$= (0.11852 - 0.05478 \times \ln (PD))^2$$

Capital charge factor¹⁰ (K)

$$= [LGD \times N [(1 - R)^{-0.5} \times G (PD) + (R / (1 - R))^{0.5} \times G (0.999)] - PD \times LGD] \times (1 - 1.5 \times b)^{-1} \times (1 + (M - 2.5) \times b)$$

$$\text{Risk-weight (RW)} = K \times 12.5$$

$$\text{Risk-weighted amount} = RW \times EAD$$

(Illustrative risk-weights are shown in **Annex IIIc-C.**)

(b) Defaulted exposures

49. According to section 156(4) of the BCR, a reporting AI should use the same risk-weight function set out in paragraph 48 to calculate the risk-weighted amount of its corporate, sovereign and bank exposures which are in default (i.e. a default of the obligor in respect of the exposure has occurred by virtue of section 149(1) or (5A) of the BCR), except that the capital charge factor (K) for a defaulted corporate, sovereign or bank exposure should be equal to the greater of:

- (i) zero; or
- (ii) the figure resulting from the subtraction of the institution's best estimate of the EL¹¹ from the LGD of the defaulted exposure.

(c) SME corporates - Firm-size adjustment

50. For exposures to an SME corporate, a firm-size adjustment (i.e. $0.04 \times (1 - (S - 50) / 450)$) according to section 157(1) of the BCR must be applied to the relevant risk-weight function as set out in paragraph 48 for the calculation of the correlation:

Correlation (R)

$$= 0.12 \times (1 - \text{EXP} (-50 \times PD)) / (1 - \text{EXP} (-50)) + 0.24 \times [1 - (1 - \text{EXP} (-50 \times PD)) / (1 - \text{EXP} (-50))] - 0.04 \times (1 - (S - 50) / 450)$$

where S is expressed as the total annual sales of the SME corporate (or the consolidated total annual sales of the group of which the SME corporate is a member) in millions of HK\$ with the value of S falling within the range from HK\$50 million to HK\$500 million. Total annual sales of less than HK\$50 million will be deemed as equivalent to HK\$50 million for the purpose of the firm-size adjustment. In the case where total annual sales do not accurately reflect a corporate's scale of business, the MA may, on an exceptional basis, allow a reporting AI to substitute the corporate's total assets for the total annual sales in calculating the firm-size adjustment for the SME corporate in

¹⁰ If this calculation results in a negative capital charge for any individual sovereign exposure, a reporting AI should apply a zero capital charge for that exposure.

¹¹ With the prior consent of the MA, a reporting AI which uses the foundation IRB approach may use the supervisory estimate for the LGD as the EL for its corporate, sovereign and bank exposures which are in default in accordance with section 220(2)(c) of the BCR.

accordance with section 157(4) of the BCR.

(d) Exposures to certain financial institutions – Correlation adjustment by way of asset value correlation multiplier

51. As stated in section 157A(1) and (2) of the BCR, for a reporting AI's corporate, sovereign or bank exposure to an obligor that is (i) a **large regulated financial institution**; or (ii) a **financial institution** that is not supervised by a **financial regulator**, the institution must multiply the correlation (R) in the risk weight function set out in paragraph 48 by 1.25.
52. To ensure that the information used for determining whether a financial institution is a large regulated financial institution is timely and accurate, the reporting AI should obtain the total assets figures from the **most recent** audited financial statements of the financial institution or its wider group, as the case requires.
53. For the avoidance of doubt, if an SME corporate that is subject to the firm-size adjustment mentioned in paragraph 50 is also a financial institution to which the asset value correlation multiplier requirements mentioned in paragraph 51 apply, a reporting AI should apply the adjustments mentioned in both paragraphs to the correlation (R) in the risk-weight function set out in paragraph 48 in accordance with section 157(5) of the BCR.

(e) SL

54. The capital treatments set out in this subsection apply to all types of SL unless otherwise specified.
55. Based on section 158(1) of the BCR, a reporting AI that meets the requirements for PD estimation under the IRB approach for its SL should use the foundation IRB approach (or the advanced IRB approach, where the institution can also provide the estimates of other credit risk components) to calculate the risk-weighted amount for such SL, according to the relevant risk-weight functions set out in paragraphs 47 to 53.
56. The use of the foundation IRB approach or the advanced IRB approach by a reporting AI in respect of its HVCRE exposures is subject to the additional requirements set out in section 158(1A), (1B) and (1C) of the BCR.
57. Subject to paragraph 56, a reporting AI may make a firm-size adjustment as described in paragraph 50 to an HVCRE exposure that meets the size criteria for SME corporates.
58. In respect of SL under the supervisory slotting criteria approach, a reporting AI should apply the risk-weight specified in **Tables 18 and 18A and section 158(3) and (4) of the BCR** for the relevant supervisory rating grade to which a SL is assigned in calculating the risk-weighted amount of that SL.

(f) LSTs arising from derivative contracts and SFTs

59. A reporting AI may calculate the risk-weighted amount of the default risk exposure in respect of LSTs by multiplying the EAD of the exposure by the relevant risk-weight

attributable to that exposure determined under the STC approach in accordance with Part 4 of the BCR. However, the positions of such exposures should still be reported in Form MA(BS)3(IIIc).

(B) Credit Risk Components

Probability of Default (PD)

60. For its corporate, sovereign and bank exposures, a reporting AI should rate on an individual basis each legal entity to which the institution is exposed. In assigning a PD to individual obligors in a connected group, a reporting AI may assign the same obligor grade in respect of exposures to these obligors (such an obligor grade reflects the benefits of group support in accordance with the established policy of the institution and is thus likely to be more favourable than if the individual obligors were rated on a standalone basis), provided the requirements of section 154(d) of the BCR are met. A reporting AI is also required to set out in policies and put into operation a process for the identification of *specific wrong-way risk* for each legal entity to which the institution is exposed.
61. A reporting AI should follow the requirements set out in section 159 of the BCR to determine the PD of its obligor grades, including-
- (i) For corporate and bank exposures, the PD of an exposure is the greater of the PD associated with the internal obligor grade to which that exposure is assigned, or 0.05%.
 - (ii) For sovereign exposures, the PD of an exposure is the PD associated with the internal obligor grade to which that exposure is assigned (i.e. without any PD floor).
 - (iii) For corporate, sovereign and bank exposures, the PD of an exposure assigned to a default grade (i.e. a default of the obligor in respect of the exposure has occurred by virtue of section 149(1) or (5A) of the BCR) is 100%.

Loss Given Default (LGD)

62. A reporting AI should provide an estimate of the LGD for each corporate, sovereign and bank exposure. There are two approaches for deriving this LGD estimate: the foundation IRB approach or the advanced IRB approach.

LGD under foundation IRB approach

63. A reporting AI should follow the requirements set out in section 160 of the BCR to determine the LGD applicable to its corporate, sovereign and bank exposures.

BCR reference	Requirements
Section 160(1)	Treatment of exposures which are unsecured or secured by non-recognized collateral and transactions with specific wrong-way risk
Section 160(2), (3), Formula 18 and 19, Table 18B	Treatment of exposures which are secured by a recognized collateral or more than one recognized collateral and the determination of effective LGD applicable to such exposures

LGD under advanced IRB Approach

64. Except for the exposures specified in paragraph 66, a reporting AI using the advanced IRB approach is allowed to use its own internal estimates of LGD for corporate and sovereign exposures subject to general requirements specified in section 161 of the BCR. The LGD should be measured as a percentage of the EAD.
65. The LGD estimated by a reporting AI must not be less than the LGD floor set out in section 161(1)(ba) to (bd) of the BCR, where applicable¹².
66. For a facility type that comprises default risk exposures in respect of single-name credit default swaps that fall within the description in section 160(1)(c)(i) or (ii) of the BCR or transactions that fall within the description in section 160(1)(d)(i) and (ii) of the BCR, a reporting AI must comply with section 160(1)(c) or (d) of the BCR as if the institution were an institution that uses the foundation IRB approach.

Exposure at Default (EAD)

67. The EAD of an exposure is measured without deduction of specific provisions and partial write-offs.
68. The EAD applicable to a corporate exposure must be not less than the floor set out in section 164(4A) and (4B) of the BCR.
69. In relation to an on-balance sheet exposure, in accordance with sections 163(1) and 164(1) and (4B) of the BCR, a reporting AI should use the current drawn amount of the exposure (for an exposure that is measured at fair value, the current drawn amount is the value determined in accordance with section 4A of the BCR), after taking into account the credit risk mitigating effect of any recognized netting, as an estimate of the EAD of the exposure such that the EAD of the exposure is not less than the sum of:
- (i) the amount by which the institution's CET1 capital would be reduced if the exposure were fully written-off; and
 - (ii) any specific provisions and partial write-offs in respect of the exposure.

Where the amount by which a reporting AI's estimate of EAD in respect of an exposure

¹² The LGD floor does not apply to the portion of a corporate exposure that is covered by a recognized guarantee issued by a sovereign (as per section 164(4C) of the BCR). Furthermore, the existence of the floor does not imply any waiver of the requirements of LGD estimation.

exceeds the sum of items (i) and (ii) of the exposure, this amount is termed a discount. The calculation of the risk-weighted amount should be independent of any discounts. In calculating the eligible provisions for the purpose of the EL-eligible provisions calculation as set out in Section C, any discounts attributed to defaulted exposures should be included.

70. In relation to the calculation of EAD of off-balance sheet exposures, a reporting AI should refer to Part XII of this section.

Effective Maturity (M)

(a) M under foundation IRB approach

71. In accordance with section 167(1) of the BCR, for a reporting AI using the foundation IRB approach for corporate, sovereign and bank exposures, M will be 2.5 years except for repo-style transactions where M will be 6 months¹³.

(b) M under advanced IRB approach

72. A reporting AI using the advanced IRB approach for corporate and sovereign exposures is required to calculate M for each exposure in accordance with section 168 of the BCR.

V. Retail Exposures

(A) Risk-weight Function for Derivation of Risk-weighted Amount

73. In line with section 176 of the BCR, there are three separate risk-weight functions for retail exposures as set out in paragraphs 74 to 76. The risk-weights for retail exposures are based on separate assessments of PD and LGD as inputs to the risk-weight functions. The calculation of the risk-weighted amount for retail exposures does not require the input of M.

(a) Non-defaulted exposures

RM

74. For retail exposures which fall within the IRB subclass of RM to individuals or RM to property-holding shell companies that are not in default (whether secured or partially secured¹⁴), the risk-weighted amount is calculated by Formula 21 to section 176 of the BCR stipulated as follows:

$$\text{Correlation (R)} = 0.15$$

¹³ Subject to the fulfilment of the notification requirement under section 167(2) of the BCR, a reporting AI using the foundation IRB approach may calculate the M of all its corporate, sovereign and bank exposures in accordance with section 168 of the BCR.

¹⁴ This means that the risk-weight also applies to the unsecured portion of such RMs.

Capital charge factor (K)

$$= \text{LGD} \times N[(1 - R)^{-0.5} \times G(\text{PD}) + (R / (1 - R))^{0.5} \times G(0.999)] - \text{PD} \times \text{LGD}$$

$$\text{Risk-weight (RW)} = K \times 12.5$$

$$\text{Risk-weighted amount} = \text{RW} \times \text{EAD}$$

QRRE (transactor and revolver)

75. For retail exposures which fall within the IRB subclasses of QRRE (transactor) and QRRE (revolver) that are not in default, the risk-weighted amount is calculated by Formula 22 to section 176 of the BCR stipulated as below:

$$\text{Correlation (R)} = 0.04$$

Capital charge factor (K)

$$= \text{LGD} \times N[(1 - R)^{-0.5} \times G(\text{PD}) + (R / (1 - R))^{0.5} \times G(0.999)] - \text{PD} \times \text{LGD}$$

$$\text{Risk-weight (RW)} = K \times 12.5$$

$$\text{Risk-weighted amount} = \text{RW} \times \text{EAD}$$

Small Business Retail Exposures and Other Retail Exposures to Individuals

76. For retail exposures which fall within the IRB subclasses of small business retail exposures or other retail exposures to individuals that are not in default, the risk-weighted amount is calculated by Formula 23 to section 176 of the BCR stipulated as below:

Correlation (R)¹⁵

$$= 0.03 \times (1 - \text{EXP}(-35 \times \text{PD})) / (1 - \text{EXP}(-35)) + 0.16 \times [1 - (1 - \text{EXP}(-35 \times \text{PD})) / (1 - \text{EXP}(-35))]$$

Capital charge factor (K)

$$= \text{LGD} \times N[(1 - R)^{-0.5} \times G(\text{PD}) + (R / (1 - R))^{0.5} \times G(0.999)] - \text{PD} \times \text{LGD}$$

$$\text{Risk-weight (RW)} = K \times 12.5$$

$$\text{Risk-weighted amount} = \text{RW} \times \text{EAD}$$

(b) Defaulted exposures

77. Corresponding to section 176(5) of the BCR, a reporting AI should use the same risk-weight function set out in paragraph 74, 75 or 76, as the case may be, to calculate the risk-weighted amount of a retail exposure which is in default (i.e. a default of the obligor in respect of the exposure has occurred by virtue of section 149(1) or (5A) of the BCR), except that the capital charge factor (K) for a defaulted retail exposure should be equal to the greater of:

¹⁵ Correlation (R) is allowed to vary with PD.

- (i) zero; or
- (ii) the figure resulting from the subtraction of the institution's best estimate of the EL from the LGD of the exposure.

(B) Credit Risk Components

Probability of Default (PD) and Loss Given Default (LGD)

78. For each pool of retail exposures, a reporting AI using the retail IRB approach should provide an estimate of the PD and LGD associated with the pool. The PD for a retail exposure that is not defaulted is the long run average of one-year default rates for obligors which fall within the pool to which the estimate relates, subject to a floor of 0.1% (if it falls within the IRB subclass of QRRE (revolver)) or 0.05% (in any other cases) (per section 177(1)(b) and (ba) of the BCR). The PD of a retail exposure assigned to a pool of retail exposures in default is 100% (per section 177(1)(c) of the BCR).
79. The estimate of LGD of a retail exposure must not be less than the LGD floor set out in section 178(c) to (ce) of the BCR, where applicable¹⁶.

Exposure at Default (EAD)

80. The EAD of an exposure is measured without deduction of specific provisions and partial write-offs.
81. The EAD applicable to a retail exposure must not be less than the floor set out in section 164(4A) and (4B) of the BCR, with all necessary modifications, as per section 179 of the BCR.
82. In relation to an on-balance sheet exposure, a reporting AI should, according to sections 164(1) and (4B) of the BCR, use the current drawn amount of the exposure (for an exposure that is measured at fair value, the current drawn amount is the value determined in accordance with section 4A of the BCR), after taking into account the credit risk mitigating effect of any recognized netting, as an estimate of the EAD of the exposure such that the EAD of the exposure is not less than the sum of:
- (i) the amount by which an institution's CET1 capital would be reduced if the exposure were fully written-off; and
 - (ii) any specific provisions and partial write-offs in respect of the exposure.

Where the amount by which a reporting AI's estimate of EAD in respect of an exposure exceeds the sum of items (i) and (ii) of the exposure, this amount is termed a discount.

¹⁶ The LGD floor does not apply to the portion of a retail exposure that is covered by a recognized guarantee issued by a sovereign (as per section 178(1)(d) of the BCR). Furthermore, the existence of the floor does not imply any waiver of the requirements of LGD estimation.

The calculation of the risk-weighted amount should be independent of any discounts. In calculating the eligible provisions for the purpose of the EL-eligible provisions calculation as set out in Section C, any discounts attributed to defaulted exposures should be included.

83. In relation to the calculation of EAD of off-balance sheet exposures, a reporting AI should refer to Part XII of this section.

VI. **CIS** Exposures

84. A reporting AI must determine the risk-weighted amount of a CIS exposure to a collective investment scheme not constituting a deductible holding in accordance with Part 6B of the BCR.

85. A reporting AI which uses the IRB approach to calculate the risk-weighted amount for its CIS exposure¹⁷ should particularly note the specific capital treatments that apply to each individual circumstance by referring to the relevant sections in the BCR set out in the table below:

- (i) when **look-through approach** (LTA) or **mandate-based approach** (MBA) is used,

	LTA	MBA
(a) If the underlying exposure of a collective investment scheme is a capital investment in a commercial entity	Section 226ZO(3)(c) of the BCR	Section 226ZR(3)(a) of the BCR
(b) If the underlying exposure is an exposure to CVA risk in respect of (i) derivative contracts or (ii) SFTs entered into by the scheme	Section 226ZO(4)(a), (b)(i)(C) & (ii) and (5) of the BCR	Section 226ZR(4)(a), (b)(i)(A) & (ii) and (5) of the BCR
(c) If the underlying exposure is not a CIS exposure to another collective investment scheme or the one mentioned in (a) and (b) above	Section 226ZO(6)(c) of the BCR	Section 226ZR(6)(c) of the BCR

¹⁷ This refers to “IRB AI” in Part 6B of the BCR. A reporting AI which uses the IRB approach to calculate its credit risk for some of its non-securitization exposures but uses the STC approach to calculate the risk-weighted amounts of its CIS exposures is classified as an “exempted IRB AI” in Part 6B of the BCR. The capital treatment of CIS exposures for exempted IRB AIs is generally the same as that for STC AIs and exempted IRB AIs should report the return data of their CIS exposures in Form MA(BS)3(IIIb).

	LTA	MBA
(d) If it is not feasible for a reporting AI to use the IRB calculation approaches set out in Table 17 of Part 6 or the SEC-IRBA under Part 7 of the BCR, to determine the risk-weighted amount of the underlying exposure	Section 226ZO(7) of the BCR	N/A
(e) If the reporting AI is granted an exemption under section 12(2)(a) of the BCR, in relation to an underlying exposure of a collective investment scheme that is the one mentioned in (a), (b)(ii) or (c) above and such underlying exposure is not a securitization exposure	Section 226ZO(8) of the BCR	N/A

- (ii) when **third-party approach** (TPA) is used, the third party should calculate the third-party output in accordance with section 226ZN(2) of the BCR.

86. To avoid doubt,

- (i) if a reporting AI's CIS exposure to a Level 1 CIS or Level n+1 CIS (or any part of such CIS exposure) constitutes one or more than one deductible holding of the institution, such CIS exposure must continue to be subject to the requirements set out in Division 4 of Part 3 and section 183 of the BCR, where appropriate; and
- (ii) if a reporting AI that uses TPA to determine the risk-weighted amount of the underlying exposures of a Level 1 CIS has sufficient information that its CIS exposure to a Level 1 CIS (or any part of such CIS exposure) constitutes one or more than one deductible holding of the institution, such CIS exposure must continue to be subject to the requirements set out in Division 4 of Part 3 and section 183 of the BCR, where appropriate.

87. A reporting AI may refer to Part IIIa and IIIb – Annex B for examples illustrating how the risk-weighted amount of CIS exposures should be determined. Although risk-weights under the STC approach are used in the examples for illustration, the calculation steps illustrated also apply to the IRB approach, except that the institution should determine the risk-weighted amount of its CIS exposure constituting deductible holdings and the amount of capital deduction in accordance with section 183 or Division 4 of Part 3 of the BCR.

VII. Other Exposures

(A) Cash Items

88. The risk-weighted amount of **cash items** is calculated by multiplying the EAD (i.e., the

principal amount) of each item by an applicable risk-weight as specified below:

[illegible]

	Cash items	Risk-weight	Definition of "cash items" in section 139(1) of the BCR
	system in Hong Kong and receivables from transactions in securities, foreign exchange, and commodities which are not yet due for settlement should, however, be subject to a risk-weight of 0%. Import and export trade bills held by the reporting AI that are in the process of collection should not be included in cash items but should be risk-weighted according to the IRB class/subclass to which the counterparty belongs.		
6.	Positive current exposures from delivery-versus-payment transactions which remain unsettled after the settlement date (a) for up to 4 business days (b) for 5 to 15 business days (c) for 16 to 30 business days (d) for 31 to 45 business days (e) for 46 or more business days <i>This item refers to any positive current exposure arising from transactions in securities, foreign exchange and commodities entered into on a delivery-versus-payment (DvP) basis where payment/delivery has not yet taken place after the settlement date.</i>	0% 100% 625% 937.5% 1250%	Paragraph (h)
7.	Amount due from transactions entered into on a basis other than a DvP basis (non-DvP transactions) and which remain unsettled for up to 4 business days after the settlement date (for non-significant amount only) <i>This item refers to any non-DvP transaction where a reporting AI has made payment/delivery to a counterparty but payment/delivery from the counterparty has not yet taken place up to and including the fourth business day after the settlement date. Such transactions should be treated as a loan provided by the reporting AI to the counterparty and risk-weighted according to the IRB class/subclass to which that counterparty belongs. The EAD of such transactions should be</i>	100%	Paragraph (i)

	Cash items	Risk-weight	Definition of "cash items" in section 139(1) of the BCR
	<i>the amount of the payment made or the current market value of the thing delivered by the reporting AI, plus any positive current exposure associated with the transactions. However, if the EAD of a transaction is immaterial (i.e. less than <u>HK\$10 million</u>), the reporting AI may choose to report such exposures under this item and apply a uniform 100% risk-weight to them in order to avoid performing a full credit assessment.</i>		
8.	Amount due from transactions entered into on a basis other than a DvP basis and which remain unsettled for 5 or more business days after the settlement date <i>This item refers to any non-DvP transactions in <u>securities</u>, or transactions in foreign exchange and commodities, that have remained unsettled after the contractual date of payment or delivery to the reporting AI for 5 or more business days. The EAD of such transactions should be the amounts of payment made or the current market value of the thing delivered by the reporting AI, plus any positive current exposure associated with the transactions.</i>	1250%	Paragraph (j)

89. Unless otherwise specified in Part 6A of the BCR, cash items falling within items 5(b), 6, 7 and 8 of the above table do not apply to repo-style transactions.

(B) Other Items

90. Pursuant to section 196(1) of the BCR, the risk-weighted amount of other items is calculated by multiplying the EAD (i.e. the principal amount) of each item by a uniform risk-weight of 100%, or a higher risk-weight specified by the MA (per section 196(2) of the BCR) if the MA is of the view that a particular exposure item poses a higher risk to the reporting AI.

	Other items	Risk-weight
1.	Premises, plant and equipment, other fixed assets for own use, and other interest in land and buildings <i>This item includes investments in premises, plant and equipment and all other fixed assets of the reporting AI which are held for its own use and a right-of-use asset recognized by the reporting AI as a lessee in accordance with the prevailing accounting standards issued by the Hong Kong Institute of</i>	100% unless otherwise specified by the MA

	Other items	Risk-weight
	Certified Public Accountants where the asset leased is a tangible asset. <i>Other interests in land which are not occupied or used in the operation of the reporting AI's business should also be reported here.</i>	
2.	Exposures subject to the IRB approach which are not elsewhere specified <i>This item includes exposures that are not classified under the IRB class of corporate, sovereign, bank, retail or CIS exposures or the IRB subclass of cash items.</i>	100% unless otherwise specified by the MA

VIII. Purchased Receivables

(A) Derivation of Risk-weighted Amount for Default Risk

91. In accordance with section 197(1) of the BCR, purchased receivables should be classified as retail or corporate exposures, according to the nature of the receivables. For receivables belonging unambiguously to one IRB subclass, the risk-weight for default risk is based on the risk-weight function applicable to that particular IRB subclass, as long as the reporting AI can meet the relevant requirements for the use of that particular risk-weight function. For example, if a reporting AI cannot comply with the criteria for QRRE (revolver), the institution should use the risk-weight function for other retail exposures to individuals. Where a reporting AI purchases a hybrid pool of receivables containing a mixture of exposures, the institution should, if it cannot separate the receivables into different IRB subclasses, apply the risk-weight function that will result in the highest risk-weighted amount of the exposures in the pool of purchased receivables.

(a) Purchased retail receivables

92. A reporting AI may use the “top-down” approach for its purchased retail receivables as for other retail exposures (i.e. estimation of credit risk components on a pooled basis) set out in section 198(3) of the BCR, provided that the institution meets the relevant requirements for retail exposures as set out in the BCR, and, in the case of calculation of default risk, it meets the requirements referred to in section 200(d) of the BCR. The reporting AI may utilize external and internal reference data to estimate the PD and LGD in respect of its purchased retail receivables at the pool level (i.e. the institution is not required to estimate PDs and LGDs or EL for individual retail receivables within the pool). The estimates for PD and LGD (or EL) should be calculated for the purchased retail receivables on a stand-alone basis, that is, without regard to any recourse to, or guarantees from, the seller or other parties.

(b) Purchased corporate receivables

93. A reporting AI which purchases corporate receivables should use the “bottom-up”

approach to estimate the credit risk components for individual receivables for the calculation of the risk-weighted amount (i.e. consistent with the treatment of the institution's corporate exposures) **set out in section 198(2) of the BCR**. In other words, the reporting AI is not allowed to use the "top-down" approach to its purchased corporate receivables. The estimates for PD and LGD (or EL) should be calculated for each of the purchased corporate receivables on a stand-alone basis, that is, without regard to any recourse to, or guarantees from, the seller or other parties.

(B) Derivation of Risk-weighted Amount for Dilution Risk

94. Dilution refers to the possibility that the amount of a receivable is reduced through cash or non-cash credits to the receivable's obligor¹⁸. **A reporting AI must follow the requirements set out in section 199 of the BCR to calculate the risk-weighted amount for dilution risk.**

IX. Leasing Transactions

(A) Leases without Residual Value Risk

95. **In accordance with section 201(1) of the BCR**, exposures arising from leasing arrangements, other than those exposing the reporting AI to residual value risk (see paragraph 96), should be treated as exposures secured by the leased assets. A reporting AI may recognize the credit risk mitigating effect of the leased assets as recognized collateral if the relevant requirements set out in the BCR are met.

(B) Leases with Residual Value Risk

96. Exposures arising from leasing arrangements that expose the reporting AI to residual value risk should be treated **in accordance with section 201(2) of the BCR** as follows:
- (i) risk-weighted amount for default risk – a reporting AI should calculate the risk-weighted amount for default risk in respect of the exposure by multiplying the discounted lease payment stream (i.e. EAD) by a risk-weight derived by using the risk-weight function applicable to the IRB subclass within which an exposure to the lessee falls (the PD and LGD as those which the institution assigns to the exposure); and
 - (ii) risk-weighted amount for residual value risk – a reporting AI should calculate the risk-weighted amount for residual value risk in respect of the exposure by multiplying the residual value of the leased asset by a risk-weight of 100%.

X. Securities Financing Transactions

¹⁸ Examples include offsets or allowances arising from returns of goods sold, disputes regarding product quality, possible debts of the borrower to a receivable's obligor, and any payment or promotional discounts offered by the borrower (e.g. a credit for cash payments within 30 days).

97. If the securities underlying the SFTs are **securitization issues**, the reporting AI should determine the risk-weight attributable to the securities in accordance with Part 7 of the BCR and report the securities in Form MA(BS)3(IIIId) accordingly.
98. Subject to paragraph 99, the default risk exposures in respect of SFTs (including centrally cleared trades that are treated as bilateral trades) booked in the banking book or trading book of reporting AIs and the associated risk-weighted amount are determined in the following manner:
- (i) institutions with the MA's approval to use the IMM(CCR) approach to calculate the default risk exposures in respect of SFTs (and also any LST arising from those transactions where covered by the IMM(CCR) approval) should report the exposures in Form IRB_OBSD_IMM. The instructions set out in paragraphs 121 to 124 on the use of the IMM(CCR) approach in respect of derivative contracts apply to SFTs (see also section 202(2) of the BCR);
 - (ii) institutions that do not have an IMM(CCR) approval to calculate the default risk exposures in respect of SFTs should calculate the exposures in accordance with Division 2B of Part 6A of the BCR and report the exposures in Form IRB_OBSD_SFT_N_IMM (see also section 202(1) and (3) of the BCR).
99. Subject to paragraph 100, where a reporting AI applies Division 2 or 2B of Part 6A of the BCR, as the case requires, to an SFT, the institution must determine the risk-weight to be allocated to its exposure under the SFT in accordance with section 202(6) of the BCR.
100. For LSTs arising from SFTs, a reporting AI may determine the relevant risk-weight using the STC approach on a permanent basis.
101. The SFT risk-weighted amount of a reporting AI referred to in paragraph 30(iii) is the sum of the default risk risk-weighted amounts for all counterparties to the SFTs of the institution where the default risk risk-weighted amount for each of the counterparties is calculated as the sum of the risk-weighted amounts of the default risk exposures across all the SFTs with the counterparty calculated in accordance with section 202 of the BCR.

XI. Credit-linked Notes (CLNs)

102. A CLN held by the reporting AI should be allocated a risk-weight, as determined by the applicable risk-weight function, which is the higher of the risk-weight attributable to the reference obligation(s) of the note as if the institution had a direct exposure to the reference obligation(s), or the risk-weight attributable to the note as set out in section 202A(1) of the BCR. However, a reporting AI is not required to provide regulatory capital for its exposure to a CLN held by it in excess of the institution's maximum liability under the note according to section 202A(2) of the BCR.

XII. Calculation of Risk-weighted Amount of Off-balance Sheet Exposures

(A) Classification of Off-balance Sheet Exposures

103. A reporting AI is required to categorize its off-balance sheet exposures into one of the following two types:
- (i) off-balance sheet exposures (other than default risk exposures in respect of derivative contracts and SFTs) in the banking book;
 - (ii) default risk exposures in respect of derivative contracts and SFTs in both the banking book and trading book.

(B) Derivation of Risk-weighted Amount of Off-balance Sheet Exposures

104. Except as specified in paragraphs 106 and 107, for the calculation of the risk-weighted amount of off-balance sheet exposures, a reporting AI should:
- (i) convert an off-balance sheet exposure into credit equivalent amount (i.e. EAD) by:
 - applying an applicable **credit conversion factor (CCF)** to the principal amount of the off-balance sheet exposure (other than derivative contracts and SFTs) in the banking book; and
 - using the IMM(CCR) approach, the SA-CCR approach or the methods referred to in section 10A(1)(b) of the BCR, as permitted under the BCR, in respect of the derivative contract and SFT, as the case may be (the resultant EAD estimate is termed “default risk exposure”); and
 - (ii) multiply the credit equivalent amount of the off-balance sheet exposure by an applicable risk-weight.
105. Regarding default risk exposure, this Part mainly illustrates the capital treatments of those derivative contracts using the IMM(CCR) approach or the SA-CCR approach. For specific instructions regarding default risk exposures with respect to SFTs, the reporting AI should refer to paragraph 98(i) for those that are subject to the IMM(CCR) approach, and paragraph 98(ii) for those that are not.
106. For LSTs arising from derivative contracts or SFTs, a reporting AI may determine the relevant risk-weight using the STC approach on a permanent basis.
107. If a reporting AI issues a CLN to cover a default risk exposure, the amount of the proceeds received from the issuance of the CLN should not be included in the calculation of the amount of the default risk exposure under Division 1A, 2 or 2B of Part 6A of the BCR.
108. Under the SA-CCR approach and the IMM(CCR) approach, the default risk exposures of credit derivative contracts falling within the following categories can be regarded as zero:

- (i) credit default swaps that have been reported as “direct credit substitutes” in item 1 of Division D (i.e. the reporting AI has already held capital against the credit risk of the reference obligations underlying the swaps);
- (ii) recognized credit derivative contracts held by the reporting AI as protection buyer in respect of which the credit risk mitigation effects have already been taken into account in accordance with Division 10 of Part 6 of the BCR for the purposes of risk-weighted amount calculation.

Off-balance Sheet Exposures (Other than Default Risk Exposures in respect of Derivative Contracts and SFTs)

(a) CCFs and EAD

- 109. A reporting AI using the foundation IRB approach should classify each of its off-balance sheet exposures (other than default risk exposures) in the banking book as one of the items and apply the CCF listed in Table 20 under section 163(2) and (2AA) of the BCR.
- 110. A reporting AI using the advanced IRB approach for corporate and sovereign exposures or the retail IRB approach for retail exposures is allowed to provide its own estimates of CCFs for off-balance sheet exposures only if the exposures are revolving in nature and not subject to a CCF of 100% in accordance with section 164(3)(a) and (3A). Otherwise, the reporting AI must apply the CCF listed in Table 20 under section 163(2) and (2AA) of the BCR to determine the EAD of such exposures.
- 111. For off-balance sheet exposures arising from unsegregated collateral posted to the counterparty by a reporting AI, the institution using the foundation IRB approach should refer to section 163(2A) and (2B) of the BCR to estimate the EAD of the exposures, while the institution using the advanced IRB approach should refer to section 164(2)(b), (4) and (4A) of the BCR to estimate the EAD of the exposures.
- 112. For corporate, sovereign and bank exposures, the principal amount to which the CCF is applied is the lower of:
 - (i) the amount of the unused committed credit line; or
 - (ii) the amount that reflects any possible constraining availability of the facility (e.g. the existence of a ceiling on the potential lending amount subject to the borrower’s reported cash flow). If the facility is constrained in this manner, the reporting AI should have sufficient monitoring and management procedures to support this treatment.
- 113. For retail exposures with an uncertain future drawdown (e.g. credit cards), a reporting AI should take into account the drawdown and repayment history and the expectation of additional drawings by the obligors prior to default in its overall calibration of loss estimates. In particular, where a reporting AI does not reflect CCFs for undrawn lines in its EAD estimates, it should reflect in its LGD estimates the likelihood of additional drawings prior to default. Conversely, if an institution does not incorporate the

possibility of additional drawings in its LGD estimates, it should do so in its EAD estimates.

114. When only the drawn balances of retail facilities have been securitized, a reporting AI should ensure that it continues to hold required capital against the undrawn balances associated with the securitization exposures under the IRB approach for commitment.

(b) Calculation of risk-weighted amount

115. In calculating the risk-weighted amount of off-balance sheet exposures (other than default risk exposures) in the banking book, the applicable risk-weight to an exposure should be derived from the risk-weight function for the IRB class/subclass within which the exposure falls.

Default Risk Exposures in respect of Derivative Contracts (including centrally cleared trades that are treated as bilateral trades) using SA-CCR approach

(a) Calculation of EAD

116. A reporting AI using the foundation IRB approach or the advanced IRB approach must determine the outstanding default risk exposures in respect of its derivative contracts booked in the banking book or trading book of the institution based on the default risk exposures calculated for the contracts by using the SA-CCR approach in accordance with Division 1A of Part 6A of the BCR.
117. The default risk exposure in respect of a derivative contract should be adjusted for the credit risk mitigating effect of any recognized netting.
118. Where a reporting AI enters into no less than one derivative contract with a counterparty, the applicable default risk exposure in respect of the transactions and contracts with that counterparty (the **outstanding default risk exposure**) is the greater of:
- (i) zero; or
 - (ii) the difference between –
 - (A) the sum of the amounts of the default risk exposures across all netting sets with the counterparty; and
 - (B) the **CVA loss** in respect of that counterparty.

(b) Calculation of risk-weighted amount

119. The SA-CCR risk-weighted amount in respect of derivative contracts of a reporting AI is 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:
- (i) the outstanding default risk exposure to the counterparty as calculated under paragraph 118; and

- (ii) the applicable risk-weight to the exposure derived from the risk-weight function for the IRB class/subclass within which the counterparty of the exposure falls.
120. For the calculation of the risk-weighted amount for LSTs arising from derivative contracts, a reporting AI may determine the relevant risk-weight using the STC approach on a permanent basis.

Default risk exposures in respect of derivative contracts and SFTs (including centrally cleared trades that are treated as bilateral trades) under the IMM(CCR) approach

(a) Calculation of EAD and risk-weighted amount

121. A reporting AI may use the IMM(CCR) approach to calculate the default risk exposures in respect of bilateral trades (including centrally cleared trades that are treated as bilateral trades) arising from derivative contracts and SFTs (including any LST arising from those transactions or contracts) if it has an IMM(CCR) approval for those transactions, contracts or LSTs, as the case may be.
122. A reporting AI must calculate -
- (i) the portfolio-level risk-weighted amount of the relevant exposures based on current market data in accordance with sections 226D(1)(a) and (2)(a) of the BCR; and
 - (ii) the portfolio-level risk-weighted amount of the relevant exposures based on stress calibration in accordance with sections 226D(1)(b), (2)(b) and (3) of the BCR.
123. For the calculation of the risk-weighted amounts referred to in paragraph 122(i) and (ii) in respect of LSTs arising from derivative contracts and SFTs, a reporting AI may determine the relevant risk-weight using the STC approach on a permanent basis.
124. The higher of the portfolio-level risk-weighted amount calculated under paragraph 122(i) and (ii) is the **IMM(CCR) risk-weighted amount** in respect of the derivative contracts and SFTs of the reporting AI that are covered by its IMM(CCR) approval. Accordingly, the default risk exposures of the derivative contracts and SFTs to be reported in Form IRB_OBSD_IMM are those calculated in accordance with sections 226E to 226M of the BCR that give rise to the IMM(CCR) risk-weighted amount (i.e. the higher of the number calculated under paragraph 122(i) and (ii)).

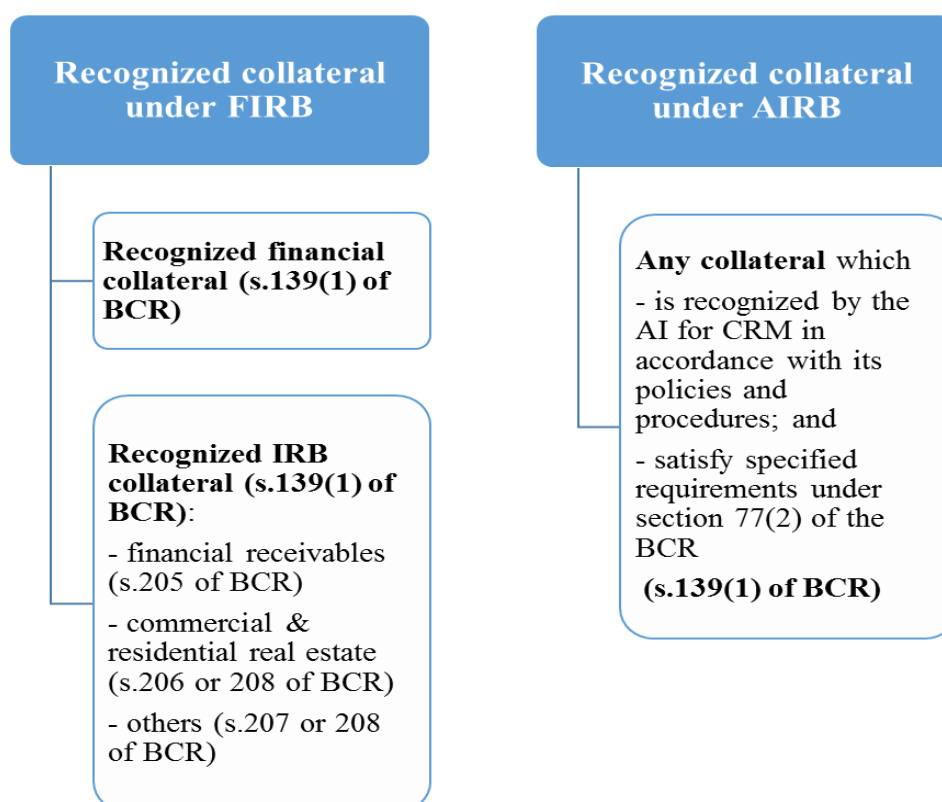
XIII. Credit Risk Mitigation

125. Subject to section 203(1A), (1B) and (2) of the BCR, a reporting AI may take into account the effect of recognized credit risk mitigation in its calculation of risk-weighted amount of exposures in accordance with Division 10 of Part 6 of the BCR, including:

- (i) recognized collateral (sections 139, 204 to 208 of the BCR);
- (ii) recognized netting (section 209 of the BCR); and
- (iii) recognized guarantees and recognized credit derivative contracts (sections 210 to 219 of the BCR).

(A) Capital Treatment of Recognized Collateral

126. Under the IRB approach, collateral is recognized through the determination of LGD for corporate, sovereign, bank and retail exposures in accordance with section 204 of the BCR. The details of the different types of recognized collateral under the foundation IRB approach and the advanced IRB / retail IRB approach are stipulated in sections 139, 204 to 208 of the BCR.



(B) Capital Treatment of Recognized Netting

127. If a reporting AI is entitled pursuant to a valid bilateral netting agreement or valid cross-product netting agreement to net amounts owed by the institution to a counterparty against amounts owed by the counterparty to the institution, the institution may take into account the credit risk mitigating effect of the recognized netting in calculating the EAD of its exposure to the counterparty in accordance with section 209 of the BCR.
128. In respect of on-balance sheet netting for sovereign exposures, the market makers who have short positions in Exchange Fund Bills/Notes may report their net holdings of such

instruments provided that the short positions are covered by the Sale and Repurchase Agreements with the HKMA. The following steps should be taken in determining the amount to be reported:

- (i) the long and short positions of instruments with a residual maturity of less than one year may be offset with each other;
- (ii) the long and short positions of instruments with a residual maturity of not less than one year may be offset with each other;
- (iii) if the net positions of both items (i) and (ii) above are long, the positions should be reported; and
- (iv) if the net position in item (i) is long and the net position in item (ii) is short, or the other way round, the positions can be netted with each other on a dollar for dollar basis. The resultant net long position, if any, should be reported.

(C) Capital Treatment of Recognized Guarantees and Recognized Credit Derivative Contracts

129. Under the IRB approach, a reporting AI may use the ***substitution framework*** to take into account the credit risk mitigating effects of recognized guarantees and recognized credit derivative contracts in calculating the risk-weighted amount of an exposure **in accordance with the BCR provisions set out in the following table:**

Exposures	BCR reference
(i) Corporate, sovereign and bank exposures under the foundation IRB approach	Sections 210, 211, 213, 214, 215 and 216
(ii) Corporate and sovereign exposures under the advanced IRB approach	Sections 210, 212, 213, 214, 215 and 217
(iii) Retail exposures under the retail IRB approach	
(iv) Purchased receivables	Sections 210 and 219

Specifically, if a recognized guarantee is provided to a reporting AI or a recognized credit derivative contract is entered into by the institution, and the institution uses the foundation IRB approach to calculate its credit risk for corporate or sovereign exposures to the guarantor or counterparty (where applicable), the institution should allocate to the covered portion of an underlying exposure a relevant risk-weight attributable to that portion of the underlying exposure determined using the foundation IRB approach according to section 217(1A), (1B) and (3A) of the BCR. In the case of an uncovered portion of an underlying exposure, a reporting AI must allocate risk-weight calculated of the underlying exposure (e.g. advanced IRB approach) in accordance with section 217(6) of the BCR.

130. For the substitution framework under the foundation IRB approach, a reporting AI must adjust the amount of the credit protection in accordance with section 216(5) and (6) if

there is a currency mismatch or maturity mismatch between an underlying exposure of the institution and a recognized guarantee or recognized credit derivative contract covering the underlying exposure.

131. Pursuant to section 213(1) of the BCR, an **internal risk transfer** used by a reporting AI to transfer the credit risk of one or more credit exposures booked in the institution's banking book to its trading book may be recognized for the purposes of calculating the risk-weighted amount of the protected credit exposure if there is an external hedge that meets all the conditions specified in section 213(2) of the BCR.
132. Where a reporting AI issues a CLN to cover the credit risk of an **underlying exposure** (i.e. the AI buys credit protection), the maximum amount of protection is the amount of the funds received from issuing that note. The protected amount should be treated as an exposure collateralized by cash deposits while the remaining unprotected amount, if any, should be treated as an exposure to the issuer of the underlying asset.

Section C: Treatment of Expected Losses and Eligible Provisions under IRB Approach

I. Determination of Total EL Amount

133. A reporting AI should sum the EL amount (i.e. EL x EAD) attributed to its corporate, sovereign, bank and retail exposures that are subject to the IRB approach to obtain a **total EL amount**. Please refer to section 220 of the BCR for details.
134. To determine EL, a reporting AI should follow the requirements set out in
- (i) section 220(2) of the BCR for exposure other than SL under supervisory slotting criteria approach, and
 - (ii) section 220(3) to (5) of the BCR for SL that are under the supervisory slotting criteria approach.

II. Determination of Total Eligible Provisions

135. “Total eligible provisions” is defined as the sum of eligible provisions that are attributed to corporate, sovereign, bank and retail exposures that are subject to the IRB approach, where eligible provisions means the sum of the reporting AI’s specific provisions, partial write-offs, regulatory reserve for general banking risks and **collective provisions** attributed to non-securitization exposures that are subject to the IRB approach and any discounts referred to in paragraphs 69 and 82 on the aforesaid IRB exposures that are in default (see section 139(1) of the BCR).

(A) A Portion of Exposures subject to STC Approach to Credit Risk

136. A reporting AI using only the IRB approach, or both the IRB approach and the STC approach, to calculate its credit risk for non-securitization exposures, either on a transitional basis, or on a permanent basis if the exposures subject to the STC approach are exempted from the IRB approach, should determine the portion of regulatory reserve for general banking risks and collective provisions that is attributed to exposures under the STC approach, IRB approach, **securitization internal ratings-based approach (SEC-IRBA)**, **securitization external ratings-based approach (SEC-ERBA)**, **securitization standardized approach (SEC-SA)** and **securitization fall-back approach (SEC-FBA)**. The treatment of such reserves and provisions attributed to exposures under these approaches is set out in the completion instructions of Form MA(BS)3(II) (see paragraphs 99 and 100), with elaborations on apportionment method in paragraphs 137 and 138.
137. A reporting AI should attribute its total regulatory reserve for general banking risks and collective provisions on a pro rata basis according to the proportion of the risk-weighted amount calculated by using the STC approach, IRB approach, SEC-IRBA, SEC-ERBA, SEC-SA or SEC-FBA, as the case requires (which does not include exposures to CCPs calculated under Part 6A of the BCR). However, with the prior consent of the MA under section 42(2)(b) of the BCR, a reporting AI may use its own method to apportion its total regulatory reserve for general banking risks and collective provisions among the various credit risk calculation approaches. For example, when one approach to determining the risk-weighted amount (e.g. STC approach or IRB approach) is used exclusively within an entity of the reporting AI’s consolidation group, the regulatory

reserve for general banking risks and collective provisions booked within the entity using the STC approach may be attributed to exposures under the STC approach. Similarly, the regulatory reserve for general banking risks and collective provisions booked within an entity using the IRB approach may be attributed to the total eligible provisions.

138. The MA may, on a case-by-case basis, consider whether there are particular circumstances that justify a reporting AI using its internal allocation methodology for allocating the reserves for general banking risks and collective provisions for recognition in capital under the STC approach, IRB approach, SEC-IRBA, SEC-ERBA, SEC-SA and SEC-FBA. The reporting AI should obtain the MA's prior consent before such a method can be used.

III. Treatment of Total EL Amount and Total Eligible Provisions

139. A reporting AI using the IRB approach should compare the amount of total eligible provisions with the total EL amount **in accordance with section 220(1) of the BCR**.
140. Where the total EL amount exceeds the total eligible provisions, the reporting AI should deduct the difference from its CET1 capital, in accordance with section 43(1)(i) of the BCR.
141. Where the total EL amount is less than the total eligible provisions, the reporting AI may include the difference in its Tier 2 capital, up to a maximum of 0.6% of the risk-weighted amount (excluding securitization exposures) calculated under the IRB approach (which does not include exposures to CCPs calculated under Part 6A of the BCR).

Section D: Specific Instructions

FORM: IRB_TOTCRWA

142. This Form gives a summary of a reporting AI's risk-weighted amount by IRB class/subclass calculated under the IRB approach.

<u>Item</u>	<u>Nature of item</u>
Items 1 to 6	<u>Number of Corresponding Forms Reported under Division B (Column 1)</u> For each IRB subclass, indicate the number of Forms reported in Division B from which the figures reported under column (2) or (3) can be referred. For example, under item 4, if a reporting AI reports one Form for RM to individuals, two Forms for QRRE (transactor) and two Forms for other retail exposures to individuals, the institution should report in column (1): - for item 4(a)(i): (1) Form IRB_RETAIL - for item 4(b): (2) Form IRB_RETAIL - for item 4(e): (2) Form IRB_RETAIL <u>Risk-weighted amount (Columns (2) to (4))</u> Report the risk-weighted amount of the IRB classes/subclasses under the IRB approach.
Item 7	<u>Total risk-weighted amount for credit risk (IRB Approach)</u> This is the sum of items 1 to 6. This is also the figure reported in item 2.3 of Division A of Form MA(BS)3(I). Report the breakdown of the following three items: - item 7(a): the risk-weighted amount of default risk exposures in respect of derivative contracts and SFTs that are <u>not</u> subject to the IMM(CCR) approach. - item 7(b): the risk-weighted amount of default risk exposures in respect of derivative contracts and SFTs that are subject to the IMM(CCR) approach. - item 7(c): the risk-weighted amount of exposures to financial institutions that are subject to the asset value correlation multiplier.

FORM: IRB_CSB

143. This Form is used for reporting the risk-weighted amount and credit risk components of corporate, bank and sovereign exposures (except SL under supervisory slotting criteria

approach which should be reported in Form IRB_SLSLOT¹⁹). In each reporting Form, a reporting AI should state whether the foundation IRB approach or advanced IRB approach is used, the IRB class and subclass for which the Form is completed, and the portfolio type when more than one Form is reported for an IRB subclass.

<u>Item</u>	<u>Nature of item</u>
Columns (1) & (2)	Obligor grade A reporting AI using the IRB approach is required to have a minimum of <u>seven</u> grades for non-defaulted obligors and <u>one</u> for defaulted obligors in its rating systems. The reporting AI can insert additional grades into column (1) if its internal obligor grades are more than <u>eight</u>. Under column (2), enter “N” for a non-defaulted obligor grade and “D” for a defaulted obligor grade. The obligor grades should be presented in an ascending order of their associated average PD. For consistency purposes, a reporting AI should report every obligor grade within its rating systems in each Form even though there is no exposure falling within a particular obligor grade.
Columns (3), (4) & (5)	PD range A reporting AI should report a distribution of PD bands as is currently used for internal purposes. For each obligor grade, report the <u>average PD</u> (in percentage) under column (5). This estimate will be used for calculation of the risk-weighted amount for each exposure. The average PD for corporate, sovereign and bank exposures that are not in default is the PD associated with the internal obligor grade to which that exposure is assigned, with a PD floor for corporate and bank exposures of <u>0.05%</u>. <u>For defaulted exposures, report 100% as the average PD for corporate, sovereign and bank exposures.</u> Report the <u>lower bound</u> and <u>upper bound</u> of the PD band for each obligor grade under columns (3) and (4) respectively. <u>The average PD must lie between the lower and upper boundaries except for the otherwise caused by the PD floor mentioned above.</u> Where a reporting AI uses a single PD estimate for each obligor grade (i.e. no PD range), the institution should enter the same PD estimate as the upper and lower bounds of the range (i.e. the same PD estimates for all columns (3), (4) and (5)). In cases where a reporting AI calculates its risk-weighted amount for both default risk and dilution risk of its purchased corporate receivables, only the PD estimate for default risk should be reported.
Columns (6) to (11)	EAD calculation For each obligor grade, give a breakdown of the exposures before recognized guarantees/credit derivative contracts by:

¹⁹ To avoid doubt, this means that a reporting AI should capture its **SL** under the foundation IRB approach or advanced IRB approach in Form IRB_CSB, and those under the supervisory slotting criteria approach in Form IRB_SLSLOT.

Item

Nature of item

- for columns (6)(i) and (6)(ii): on-balance sheet exposures before and after netting (if not covered by a valid bilateral netting agreement, the gross amount of an exposure should be reported in both columns)
- for column (7): off-balance sheet exposures (other than derivative contracts and SFTs)
- for column (8): derivative contracts and SFTs (after adjusting for the credit risk mitigating effect of a valid bilateral netting agreement or valid cross-product netting agreement, if any)

A reporting AI is required to provide the breakdown of the EAD derivation of off-balance sheet exposures in Division D for exposures other than derivative contracts and SFTs, and Division E for derivative contracts and SFTs. Specific reporting requirements for off-balance sheet exposures are given in the specific instructions for Form IRB_OBSND, Form IRB_OBSD_SACCR, Form IRB_OBSD_SFT_N_IMM and Form IRB_OBSD_IMM.

Exposures with guarantees/credit derivative contracts recognized under the substitution framework should be reported as follows:

Foundation IRB approach

- (i) Identify the IRB subclass of an exposure and report the amount of the exposure before recognized guarantees/credit derivative contracts under columns (6) to (8) in the grade applicable to the PD estimate of the underlying obligor.
- (ii) Divide the exposure amount into two portions: (a) the portion covered by credit protection and (b) the remaining uncovered portion.
- (iii) Report the uncovered portion as “Exposures after recognized guarantees/credit derivative contracts” under columns (9) to (11) of the same Form, in the grade applicable to the PD estimate of the underlying obligor.
- (iv) Report the secured portion as “Exposures after recognized guarantees/credit derivative contracts” under columns (9) to (11) of the Form for the IRB subclass applicable for the credit protection provider and in the grade applicable to the PD estimate of the credit protection provider **or the PD estimate determined according to section 216(3)(b) of the BCR** (i.e. PD substitution).

Advanced IRB approach

- (i) Identify the IRB subclass of an exposure and report the amount of the exposure before recognized guarantees/credit derivative contracts under columns (6) to (8) in the grade applicable to the PD estimate of the underlying obligor.
- (ii) Where the risk mitigating effects are addressed through
 - PD substitution: report in the way similar to the foundation IRB approach;

<u>Item</u>	<u>Nature of item</u>
	- adjusting the PD estimate of the obligor: report the same exposure amount under columns (9) to (11) of the same Form in a grade applicable to the adjusted PD estimate of the underlying obligor; or - adjusting the LGD estimate: report the same exposure amount under columns (9) to (11) of the same Form and in the grade applicable to the PD estimate of the underlying obligor. For exposures <u>without</u> recognized guarantees/credit derivative contracts or <u>without</u> taking into account the credit risk mitigating effect of recognized guarantees/credit derivative contracts, the same exposure amount should be entered in both columns (6)(ii) to (8) and (9) to (11).
Column (12)	<u>EAD</u> This is the sum of columns (9) to (11), which is the EAD figure for calculating the risk-weighted amount of an exposure.
Column (13)	<u>Exposure weighted average LGD</u> LGD is reported in percentage. $\text{Exposure weighted average LGD} = \sum_i \text{LGD}_i \times \text{EAD}_i / \sum_i \text{EAD}_i$ where: LGD_i = the LGD associated with the i^{th} exposure in a grade. EAD_i = the EAD associated with the i^{th} exposure allocated to a grade. The percentage reported in column (13) should agree with column (13) of Form IRB_FIRBLGD or column (19) of Form IRB_AIRBLGD, where applicable.
Column (14)	<u>Exposure weighted average maturity value</u> M is reported in years. $\text{Exposure weighted average maturity value} = \sum_i \text{M}_i \times \text{EAD}_i / \sum_i \text{EAD}_i$ where: M_i = the M associated with the i^{th} exposure in a grade. EAD_i = the EAD associated with the i^{th} exposure allocated to a grade.
Columns (15) to (17)	<u>Risk-weighted amount</u> Calculate the risk-weighted amount of <u>each</u> exposure and report the sum of risk-weighted amount (including the risk-weighted amount for dilution risk and residual value risk, where applicable) for each obligor grade under column (15).

<u>Item</u>	<u>Nature of item</u>
	Report under column (16) the risk-weighted amount for dilution risk for purchased receivables.
	Report under column (17) the risk-weighted amount for residual value risk for leasing transactions.
Columns (18) & (19)	<u>Memorandum items</u>
	Report under column (18) the sum of the expected loss amount of exposures for each obligor grade.
	Report under column (19) the total number of obligors and credit protection providers for the exposures reported in column (12) for each obligor grade.
Columns (6) to (12), & (15) to (19)	<u>Exposures subject to asset value correlation multiplier</u>
	Report under columns (6) to (12) and (15) to (19) the reporting AI's exposures to financial institutions that are subject to the asset value correlation multiplier.

FORM: IRB_SLSLOT

144. This Form is used for reporting SL under supervisory slotting criteria approach. In each reporting Form, a reporting AI should specify the SL subclass for which the Form is completed.

<u>Item</u>	<u>Nature of item</u>
Columns (1) & (2)	<u>Supervisory rating grades / supervisory risk-weights</u>
	A reporting AI using the supervisory slotting criteria approach for SL is required to map its internal grades for the SL into five supervisory rating grades: “strong”, “good”, “satisfactory”, “weak” and “default”, each of which is assigned a supervisory risk-weight (SRW) as given in column (2), whilst the values of SRWs displayed depend on the IRB subclass selected for input:
	- when an IRB subclass other than “specialized lending (high-volatility commercial real estate)” is selected for input, column (2) will show the SRWs applicable to specialized lending (other than HVCRE exposures) as set out in column (A) of the table below; - when the IRB subclass of “specialized lending (high-volatility commercial real estate)” is selected for input, column (2) will show the SRWs applicable to HVCRE exposures, as set out in column (B) of the table below.

ItemNature of item

Supervisory rating grades	SRW (%) applicable to SL (other than HVCRE exposures) (A)	SRW (%) applicable to HVCRE exposures (B)
STRONG (a)	50	70
STRONG	70	95
GOOD (a)	70	95
GOOD	90	120
SATISFACTORY	115	140
WEAK	250	250
DEFAULT	0	0

Note: Supervisory rating grades marked by “(a)” denote preferential risk-weights. The preferential risk-weights under column (A) do not apply to specified ADC exposure.

Columns (3)
to (8)EAD calculation

For each supervisory rating grade, give a breakdown of the exposures before recognized guarantees/credit derivative contracts by:

- for columns (3)(i) and (3)(ii): on-balance sheet exposures before and after netting (if not covered by a valid bilateral netting agreement, the gross amount of an exposure should be reported in both columns)
- for column (4): off-balance sheet exposures (other than derivative contracts and SFTs)
- for column (5): derivative contracts and SFTs (after adjusting for the credit risk mitigating effect of a valid bilateral netting agreement or valid cross-product netting agreement, if any)

A reporting AI is required to provide the breakdown of the EAD derivation of off-balance sheet exposures in Division D for exposures other than derivative contracts and SFTs, and Division E for derivative contracts and SFTs. Specific reporting requirements for off-balance sheet exposures are given in the specific instructions for Form IRB_OBSND, Form IRB_OBSD_SACCR, Form IRB_OBSD_SFT_N_IMM and Form IRB_OBSD_IMM.

Exposures with recognized guarantees/credit derivative contracts should be reported as below:

- (i) Identify the IRB subclass of a SL and report the exposure amount before guarantees/credit derivative contracts under columns (3) to (5) in the supervisory rating grade applicable to the obligor.
- (ii) Divide the exposure amount into two portions: (a) the portion secured

<u>Item</u>	<u>Nature of item</u>
	by credit protection; and (b) the remaining unsecured portion.
	(iii) Report the uncovered portion as “Exposures after recognized guarantees/credit derivative contracts” under columns (6) to (8) of the same Form, in the supervisory rating grade applicable to the obligor.
	(iv) Report the secured portion as “Exposures after recognized guarantees/credit derivative contracts” under relevant columns of the applicable Form for the IRB subclass applicable for the credit protection provider and in the grade applicable to the PD estimate of the credit protection provider (i.e. PD substitution).
	For exposures <u>without</u> recognized guarantees/credit derivative contracts or <u>without</u> taking into account the credit risk mitigating effect of recognized guarantees/credit derivative contracts, the same exposure amount should be entered in both columns (3)(ii) to (5) and (6) to (8).
Column (9)	<u>EAD</u> This is the sum of columns (6) to (8), which is the EAD figure for calculating the risk-weighted amount of an exposure.
Column (10)	<u>Exposure weighted average maturity value</u> Specific instructions for column (14) of Form IRB_CSB apply. The supervisory estimates of M under the foundation IRB approach are not applicable to SL under supervisory slotting criteria approach.
Column (11)	<u>Risk-weighted amount</u> This is calculated as follows: SRW (column (2)) x EAD (column (9)).
Columns (12) & (13)	<u>Memorandum items</u> Report the sum of the expected loss amount of exposures for each supervisory rating grade under column (12). Report under column (13) the total number of obligors and credit protection providers for the exposures reported in column (9) for each supervisory rating grade.

FORM: IRB_RETAIL

145. This Form is used for reporting the different IRB subclasses of retail exposures. In each reporting Form, a reporting AI should state the retail IRB subclass for which the Form is completed, and the portfolio type when more than one Form is reported for an IRB subclass.

<u>Item</u>	<u>Nature of item</u>
Columns (1) & (2)	Pool

<u>Item</u>	<u>Nature of item</u>
	There is <u>no</u> minimum number of pools for retail exposures. Under column (2), enter “N” for a non-defaulted pool and “D” for a defaulted pool. The pools should be presented in an ascending order of their associated average PD. For consistency purposes, a reporting AI should report every obligor grade within its internal rating systems in each Form even though there is no exposure falling within a particular obligor grade.
Columns (3), (4) & (5)	<u>PD range</u> A reporting AI should report a distribution of PD bands as is currently used for internal purposes. For each pool (i.e. PD band), report the <u>average PD</u> (in percentage) under column (5). This estimate will be used for calculation of risk-weighted amount of each pool. The average PD for retail exposures that are not in default should not be less than <u>0.1% for qualifying revolving retail exposures (revolver) or 0.05% otherwise</u>. For defaulted exposures, the average PD is <u>100%</u>. Report the <u>lower bound</u> and <u>upper bound</u> of the PD band for each pool under columns (3) and (4) respectively. The average PD must lie between the lower and upper boundaries <u>except for the otherwise caused by the PD floor mentioned above</u>. Where a reporting AI uses a PD estimate for each pool (i.e. no PD range), it should enter the same PD estimate as the upper and lower bounds of the range (i.e. the same PD estimates for all columns (3), (4) and (5)). In cases where a reporting AI calculates its risk-weighted amount for both default risk and dilution risk of its purchased retail receivables, only the PD estimate for default risk should be reported.
Columns (6) to (11)	<u>EAD Calculation</u> For each pool, give a breakdown of the exposures before recognized guarantees/credit derivative contracts by: - for columns (6)(i) and (6)(ii): on-balance sheet exposures before and after netting (if not covered by a valid bilateral netting agreement, the gross amount of an exposure should be reported in both columns) - for column (7): off-balance sheet exposures (other than derivative contracts and SFTs) - for column (8): derivative contracts and SFTs (after adjusting for the risk mitigating effect of a valid bilateral netting agreement or valid cross-product netting agreement, if any) A reporting AI is required to provide the breakdown of the EAD derivation of off-balance sheet exposures in Division D for exposures other than derivative contracts and SFTs, and Division E for derivative contracts and SFTs. Specific reporting requirements for off-balance sheet exposures are given in the specific instructions for Form IRB_OBSND, Form IRB_OBSD_SACCR, Form IRB_OBSD_SFT_N_IMM and Form IRB_OBSD_IMM.

<u>Item</u>	<u>Nature of item</u>
	Exposures <u>with</u> guarantees/credit derivative contracts recognized under the <u>substitution framework</u> should be reported as below: (i) Identify the IRB subclass of an exposure and report the amount of the exposure before recognized guarantees/credit derivative contracts under columns (6) to (8) in the pool applicable to the underlying obligor. (ii) Where the credit risk mitigating effects are addressed through adjusting the PD estimate or the LGD estimate, report the same exposure amount under columns (9) to (11) of the same Form in the pool applicable to the adjusted PD/LGD estimates of the underlying obligor. For exposures <u>without</u> recognized guarantees/credit derivative contracts or <u>without</u> taking into account the credit risk mitigating effect of guarantees/credit derivative contracts, the same exposure amount should be entered in both columns 6(ii) to (8) and (9) to (11).
Column (12)	<u>EAD</u> This is the sum of columns (9) to (11), which is the EAD figure for calculating the risk-weighted amount of an exposure.
Column (13)	<u>LGD</u> LGD for a pool is measured in percentage.
Column (14) to (16)	<u>Risk-weighted amount</u> Calculate the risk-weighted amount (including dilution risk and residual value risk, where applicable) for <u>each</u> pool under column (14). Report under column (15) the risk-weighted amount for dilution risk for purchased receivables. Report under column (16) the risk-weighted amount for residual value risk for leases.
Columns (17) & (18)	<u>Memorandum items</u> Report under column (17) the sum of the expected loss amount of exposures for each pool. Report under column (18) the total number of obligors and credit protection providers for the exposures reported in column (12) for each pool.

FORM: IRB_CIS

146. This Form is used for reporting the breakdown of the principal amounts or credit equivalent amount and the risk-weighted amounts of CIS exposures not constituting

deductible holdings²⁰.

<u>Item</u>	<u>Nature of item</u>
Column (1)	<u>Effective risk-weight of CIS exposures</u> For each of the CIS calculation approaches used to calculate the risk-weighted amount of the CIS exposures, report the information of the CIS exposures in accordance with the range of the effective risk-weight specified in column (1).
Column (2)	<u>Principal Amount or Credit Equivalent Amount</u> Report the principal amount (if the CIS exposure is an on-balance sheet exposure) or the credit equivalent amount (if the CIS exposure is an off-balance sheet exposure) of the CIS exposure concerned.
Column (3)	<u>Risk-weighted amount</u> Report the risk-weighted amount of the CIS exposure concerned.

FORM: IRB_OTHER

147. This Form is used for reporting the risk-weighted amount of cash items and other items that are not reported elsewhere in the return.

<u>Item</u>	<u>Nature of item</u>
Column (1)	<u>Cash items</u> A reporting AI is required to report any cash item listed in the table under paragraph 88. <u>Other items</u> A reporting AI is required to report any other item listed in the table under paragraph 90. The reporting AI should provide a brief description of other items that are not specifically identified elsewhere in this return.
Columns (3) & (4)	<u>EAD calculation</u> A reporting AI is required to report both the exposure amount before and after netting in columns (3) and (4) respectively. Where an item is not covered by a valid bilateral netting agreement or valid cross-product netting agreement, the same exposure amount should be entered in both columns.
Column (5)	<u>Risk-weighted amount</u>

²⁰ To avoid doubt, for a CIS exposure constituting deductible holdings,

- the deductible holding which is an equity exposure that falls within section 54A of the BCR should be reported in Form MA(BS)3(IIIb) if the deductible holding is risk-weighted in accordance with Part 4 of the BCR; or
- in any other case, the deductible holding should be reported in Form IRB_CSB if the deductible holding is risk-weighted in accordance with Part 6 of the BCR.

<u>Item</u>	<u>Nature of item</u>
-------------	-----------------------

This is calculated as follows: EAD (column (4)) x SRW (column (2)).

FORM: IRB_FIRBLGD

148. This Form is used for reporting the LGD information for corporate, sovereign and bank exposures under the foundation IRB approach. For each Form (IRB_CSB) reported under Division B for corporate, sovereign and bank exposures under the foundation IRB approach (except SL under supervisory slotting criteria approach), a reporting AI should file a corresponding Form under IRB_FIRBLGD.
149. In each reporting Form of IRB_FIRBLGD, a reporting AI should state the IRB class and subclass for which the Form is completed, and also the portfolio type where more than one Form is reported for an IRB subclass.

<u>Item</u>	<u>Nature of item</u>
-------------	-----------------------

Columns (1) & (2)	<u>Obligor grade</u>
----------------------	----------------------

Report the average PD for exposures assigned to each grade. The number of grades and the average PD figures reported should be the same as those reported in column (5) of Form IRB_CSB for that particular IRB subclass/portfolio type.

Column (3)	<u>EAD</u>
------------	------------

Report the sum of EAD for exposures of each grade. This figure should be the same as column (12) of Form IRB_CSB for that particular IRB subclass/portfolio type.

Columns (4) to (12)	<u>LGD</u>
------------------------	------------

Allocate or apportion the EAD of each exposure according to the following facility/collateral types:

Column (4): Exposures with ***specific wrong-way risk*** (LGD: 100%)

Column (5): Subordinated exposures (LGD: 75%)

Column (6): Unsecured senior exposures (LGD: 45%)

Column (7): Unsecured senior exposures (LGD: 40%)

Column (8): Other recognized IRB collateral (LGD: 25%)

Column (9): Recognized commercial real estate (LGD: 20%)

Column (10): Recognized residential real estate (LGD: 20%)

Column (11): Recognized financial receivables (LGD: 20%)

Column (12): Recognized financial collateral (LGD: 0%)

<u>Item</u>	<u>Nature of item</u>
	Report the full amount of EAD under - column (4) if the exposure falls within section 226J(3) and (4) of the BCR i.e. it is an exposure with specific wrong-way risk, - column (5) if the exposure is a subordinated exposure that is not captured under column (4), - column (6) if the exposure is an unsecured senior exposure that is a sovereign exposure, a bank exposure or an exposure to financial institution treated as corporate and is not captured under column (4), - column (7) if the exposure is an unsecured senior exposure that is not captured under column (4) or (6). If a senior exposure is collateralized by other recognized IRB collateral, recognized commercial real estate, recognized residential real estate, recognized financial receivables or recognized financial collateral (including gold), then the reporting AI should enter the collateralized portion after the haircut adjustments in column (8), (9), (10), (11) or (12) respectively. The unsecured portion should be reported in column (4), (6) or (7).

Column (13)	<u>Exposure weighted average LGD</u> Report the exposure weighted average LGD for each obligor grade. These figures should be the same as those reported under column (13) of Form IRB_CSB for that particular IRB subclass/portfolio type.
-------------	---

FORM: IRB_AIRBLGD

150. This Form is used for reporting the LGD information for corporate **and sovereign exposures** under the advanced IRB approach. For each Form (IRB_CSB) reported under Division B for corporate **and sovereign exposures** under the advanced IRB approach (except SL under supervisory slotting criteria approach), a reporting AI should file a corresponding Form under IRB_AIRBLGD.
151. In each reporting Form of IRB_AIRBLGD, a reporting AI should state the IRB class and subclass for which the Form is completed, and also the portfolio type where more than one Form are reported for an IRB subclass.

<u>Item</u>	<u>Nature of item</u>
Columns (1) & (2)	<u>Obligor grade</u> Report the average PD for exposures assigned to each obligor grade. The number of obligor grades and the average PD figures reported should be the same as those reported in column (5) of Form IRB_CSB for that particular IRB subclass/portfolio type.
Column (3)	<u>EAD</u> Report the sum of EAD for exposures of each grade. These figures should MA(BS)3(IIIc) /P.50 (03/2025)

<u>Item</u>	<u>Nature of item</u>
	be the same as those reported under column (12) of Form IRB_CSB for that particular IRB subclass/portfolio type.
Columns (4) to (18)	<u>LGD</u> Allocate or apportion the EAD of each exposure according to the facility grades (i.e. columns (4) to (18)), each of which is associated with a specified LGD. A reporting AI should specify the percentage of LGD under each facility grade, together with a brief description where possible except that the value of LGD in column (18) (or the last column under this item if dynamic rows are inserted after column (17)) is set at 100%.
Column (19)	<u>Exposure weighted average LGD</u> Report the exposure weighted average LGD for each grade. These figures should be the same as those reported under column (13) of Form IRB_CSB for that particular IRB subclass/portfolio type.

Selected breakdown of exposures (not applicable to sovereign exposures)

Columns (A), (A1) to (A3)	<u>EAD of exposures where the estimated LGD is lower than the LGD floor as set out in section 161 of the BCR</u> Among the exposures reported above, report the EAD of exposures where the estimated LGD is lower than the LGD floor as required in the BCR. Report the EAD of the exposures in columns (A1), (A2) and (A3) if the estimated LGDs of the exposures are lower than the LGD floors by - less than 5%, - between 5% and 10%, and - more than 10% respectively. Report the sum of EADs reported in columns (A1) to (A3) in column (A) in the same row.
---------------------------	---

FORM: IRB_RETAILIRBLGD

152. This Form is used for reporting the LGD information for retail exposures under the retail IRB approach. For each Form (IRB_RETAIL) reported under Division B for retail exposures, a reporting AI should file a corresponding Form under IRB_RETAILIRBLGD.
153. In each reporting Form of IRB_RETAILIRBLGD, a reporting AI should state the IRB subclass for which the Form is completed, and also the portfolio type where more than one Form are reported for an IRB subclass.

<u>Item</u>	<u>Nature of item</u>
Columns (1)	<u>Pool</u>

<u>Item</u>	<u>Nature of item</u>
& (2)	Report the average PD for exposures assigned to each pool of retail exposures. The number of pools of exposures and the average PD figures reported should be the same as those reported in column (5) of Form IRB_RETAIL for that particular IRB subclass/portfolio type.
Column (3)	<u>EAD</u> Report the sum of EAD for exposures of each pool. These figures should be the same as those reported under column (12) of Form IRB_RETAIL for that particular IRB subclass/portfolio type.
Column (4)	<u>LGD</u> Report the LGD for exposures of each pool. These figures should be the same as those reported under column (13) of Form IRB_RETAIL for that particular IRB subclass/portfolio type.
	<u>Selected breakdown of exposures</u>
Columns (A), (A1) to (A3)	<u>EAD of exposures where the estimated LGD is lower than the LGD floor as set out in section 178 of the BCR</u> Among the exposures reported above, report the EAD of exposures where the estimated LGD is lower than the LGD floor as required in the BCR. Report the EAD of the exposures in columns (A1), (A2) and (A3) if the estimated LGDs of the exposures are lower than the LGD floors by - less than 5%, - between 5% and 10%, and - more than 10% respectively. Report the sum of EADs reported in columns (A1) to (A3) in column (A) in the same row.

FORM: IRB_OBSND

154. This Form is used for reporting the breakdown of off-balance sheet exposures other than derivative contracts and SFTs for corporate, sovereign, bank and retail exposures. For corporate, sovereign and bank exposures, a reporting AI using the foundation IRB approach to derive the risk-weighted amount for these exposures should report information under (A1) and those using the advanced IRB approach should report information under (A2). (B) is for reporting of retail exposures.

<u>Item</u>	<u>Nature of item</u>
Items 1 to 15	<u>Off-balance sheet exposures (Other than Default Risk Exposures in respect of derivative contracts and SFTs)</u> A reporting AI is required to report in items 1 to 15 each of its off-balance

<u>Item</u>	<u>Nature of item</u>
	sheet exposures other than default risk exposures in respect of derivative contracts and SFTs as listed in Table 20 to section 163 of the BCR²¹. Exposures reported in item 15 may include the credit exposures to persons holding collateral posted by the reporting AI (other than collateral posted for centrally cleared trades and held by CCPs) in a manner that is not bankruptcy remote from the persons. A reporting AI should provide, in all cases, the principal amount and credit equivalent amount of the exposures before and after recognized guarantees/credit derivative contracts. The reporting AI is also required to estimate CCFs for those types without prescribed CCFs. For such types of off-balance sheet exposures, the institution is required to indicate the CCF (or a representative value of a range of CCFs).
Items C _T & D _T	<u>Total credit equivalent amount</u> Report in item C_T the sum of the credit equivalent amount (before recognized guarantees/credit derivative contracts) reported in items 1 to 15. Report in item D_T the sum of the credit equivalent amount (after recognized guarantees/credit derivative contracts) reported in items 1 to 15.

FORM: IRB_OBSD_SACCR

155. This Form is used for reporting the breakdown of the default risk exposures of derivative contracts²² for corporate, sovereign, bank and retail exposures using the SA-CCR approach.

<u>Item</u>	<u>Nature of item</u>
Items 1 to 5	<u>Default risk exposures in respect of derivative contracts</u> A reporting AI is required to report the derivative contracts in accordance with the asset classes (viz. exchange rate contract, interest rate contract, equity-related derivative contract, credit-related derivative contract, and commodity-related contract) and the nature of the transactions into items 1 to 5 of Tables A1 to A3 (refer to the following instructions for details).
Items A(i) and A(ii)	<u>Total default risk exposure</u> Report in item A(i) the total default risk exposures (before recognized guarantees / credit derivative contracts) reported in items 1 to 5. Report in item A(ii) the total default risk exposures (after recognized guarantees / credit derivative contracts) reported in items 1 to 5.

²¹ A reporting AI using the advanced IRB approach can use its own estimate of CCF to calculate the credit equivalent amount of the exposure only if the exposure is revolving in nature and is not subject to a CCF of 100% in Table 20 to section 163 of the BCR.

²² The exposures covered include LSTs arising from derivative contracts – see their respective definitions under section 2(1) of the BCR.

Item Nature of item

Table Nature of item

(A1) Unmargined contracts not subject to recognized netting

A reporting AI is required to report in Table (A1) derivative contracts (a) that fall within the definition of unmargined contract in section 226BA of the BCR; and (b) that are not subject to recognized netting. Contracts that fall within section 226BH(2) or (4) of the BCR and contracts that have been removed from the netting sets concerned under section 226BH(3)(b) or (5) of the BCR should also be reported in this Table.

Report the stated notional amount of the derivative contracts in column (a) of items 1 to 5.

Report the replacement cost and the potential future exposure of the derivative contract calculated in accordance with Division 1A of Part 6A of the BCR by using the formula applicable to the contracts in columns (b) and (c) respectively. In the case of a sold option whose default risk exposure is set to zero under section 226BH(2) or (3) of the BCR, the replacement cost and the potential future exposure of the option may be reported as zero.

Report the default risk exposure of the derivative contract in column (d(i)), and report the default risk exposure after taking into account recognized guarantees/credit derivative contracts in column (d(ii)).

(A2) Margined contracts not subject to recognized netting

Report in Table (A2) derivative contracts (a) that fall within the definition of margined contract in section 226BA of the BCR and (b) that are not subject to recognized netting.

The reporting arrangements described in Table (A1) above also apply to Table (A2).

In addition, if the default risk exposure calculated for a margined contract on an unmargined basis is regarded as the default risk exposure of the contract, the default risk exposure calculated on an unmargined basis should be reported in this Table (see section 226BH(1) of the BCR).

If more than one derivative contract is covered by a single variation margin agreement,

- (i) report the stated notional amount of each of the derivative contracts in items (1a), (2a), (3a), (4a) or (5a), as the case requires; and
- (ii) there is no need to report the replacement cost, potential future exposure and default risk exposure calculated for these contracts by type of contract (i.e. items 1 to 5), the default risk exposures calculated should be reported in columns (A(i)) and (A(ii)) (after taking into account recognized guarantees / credit derivative contracts, if any) of this Table.

<u>Item</u>	<u>Nature of item</u>
(A3)	<u>Contracts (margined or unmargined) subject to recognized netting</u> Report in Table (A3) derivative contracts (whether margined or not) that are subject to recognized netting. The default risk exposure of a netting set should be reported in columns (A(i)) and (A(ii)) (after taking into account recognized guarantees / credit derivative contracts, if any) of this Table.
(B1)	<u>CCP-related transactions (including offsetting transactions)</u> Report the amounts under Tables (A1) to (A3) that are related to offsetting transactions or CCP-related transactions entered into by the reporting AI with clearing members or clearing clients.

FORM: IRB_OBSD_SFT_N_IMM

156. This Form is used for reporting the breakdown of the default risk exposures of SFTs²³ (including centrally cleared trades that are treated as bilateral trades) for corporate, sovereign, bank and retail exposures which are not subject to the IMM(CCR) approach.

<u>Item</u>	<u>Nature of item</u>
Item 1	<u>SFTs not subject to recognized netting</u> A reporting AI is required to report the amount of assets sold, transferred, loaned or paid and the default risk exposures in respect of SFTs (before and after recognized guarantees / credit derivative contracts) that are not subject to recognized netting in accordance with section 226MJ of the BCR.
Item 2	<u>SFTs subject to recognized netting</u> Report the amount of assets sold, transferred, loaned or paid and the default risk exposures in respect of SFTs (before and after recognized guarantees / credit derivative contracts) that are subject to recognized netting in accordance with section 226MK or 226ML of the BCR.
Item B(i) and B(ii)	<u>Total default risk exposures</u> Report in item B(i) the total default risk exposures (before recognized guarantees / credit derivative contracts) reported in items 1 and 2. Report in item B(ii) the total default risk exposures (after recognized guarantees / credit derivative contracts) reported in items 1 and 2.
Item 3	<u>CCP-related transactions (including offsetting transactions)</u> Report the amounts that are related to offsetting transactions or CCP-related transactions entered into by the reporting AI with clearing members or

²³ The exposures covered include LSTs arising from SFTs – see their respective definitions under section 2(1) of the BCR.

<u>Item</u>	<u>Nature of item</u>
	clearing clients.

FORM: IRB_OBSD_IMM

157. This Form is used for reporting the breakdown of the default risk exposures of derivative contracts²⁴ and SFTs²⁵ (including centrally cleared trades that are treated as bilateral trades) for corporate, sovereign, bank and retail exposures under the IMM(CCR) approach. A reporting AI should refer to paragraphs 98(i) and 121 to 124 and report in this Form for different IRB classes the principal amounts and default risk exposures of derivative contracts and SFTs that are associated with the *higher* of the portfolio-level risk-weighted amount of the relevant exposures referred to in paragraph 122(i) and (ii).

<u>Item</u>	<u>Nature of item</u>
-------------	-----------------------

Items 1 to 7	<u>Derivative contracts and SFTs</u>
--------------	--------------------------------------

A reporting AI is required to report in items 1 to 7 each of its derivative contracts (other than LSTs), SFTs (other than LSTs) and LSTs (regardless of the nature of the LSTs) by IRB class.

Reporting AIs should report relevant exposures that are not subject to valid bilateral netting agreements or valid cross-product netting agreements, or exposures that are required to be treated as a separate netting set under section 226J(1) of the BCR, in items 1 to 3 as appropriate. Relevant exposures that are subject to valid bilateral netting agreements or valid cross-product netting agreements and which do not fall within section 226J(1) of the BCR should be reported in items 4 to 7 as appropriate.

A reporting AI should provide, in all cases, the total notional amount (which, in respect of SFTs, is the total amount of assets sold, transferred, loaned or paid under the SFTs) and default risk exposure of the transactions before and after recognized guarantees/credit derivative contracts (but after netting in both instances).

Items	<u>Total default risk exposures</u>
-------	-------------------------------------

B(ii) & B(iii)	Report in item B(ii) the sum of the default risk exposures (before recognized guarantees/credit derivative contracts but after netting) reported in items 1 to 7 for different IRB classes.
----------------	---

Report in item B(iii) the sum of the default risk exposures (after recognized guarantees/credit derivative contracts and netting) reported in items 1 to 7 for different IRB classes.

Items 8a, 8b(i) and 8b(ii)	<u>CCP-related transactions (including offsetting transactions)</u>
----------------------------	---

Out of the amounts reported in items 1 to 7, report in item 8, by IRB class, the amounts that are related to offsetting transactions or CCP-related transactions entered into by the reporting AI with clearing members or

²⁴ Refer to footnote 22.

²⁵ Refer to footnote 23.

<u>Item</u>	<u>Nature of item</u>
	clearing clients.

FORM: IRB_ELEP

158. This Form is used for reporting the EL amount and eligible provisions by IRB class/subclass and calculating the difference between the total EL amount and total eligible provisions (if any) for the determination of capital base.

<u>Item</u>	<u>Nature of item</u>
Items 1 to 4	<u>Corporate, sovereign, bank and retail exposures</u> A reporting AI should report by IRB class/subclass the EL amount and eligible provisions for non-defaulted exposures (columns (a) and (d)) and defaulted exposures (columns (b) and (e)).
Item 5	<u>Total</u> This is the sum of items 1 to 4.
Items 6 to 9	<u>EL-EP calculation</u> Excess of total EL amount over total eligible provisions will be reported in item 6. This figure will be deducted from a reporting AI's CET1 capital, in accordance with section 43(1)(i) of the BCR (see Form MA(BS)3(II)). Surplus of total eligible provisions over total EL amount will be reported in item 7. This figure will be compared to a ceiling reported in item 8 (i.e. 0.6% x item 7 of Form IRB_TOTCRWA) and then the lower amount is reported in item 9. This figure will be added to a reporting AI's Tier 2 capital (see Form MA(BS)3(II)).

Hong Kong Monetary Authority
 March 2025

Annex IIIc-A: Illustrations

- Below are some illustrative examples for the calculation of the risk-weighted amounts under the foundation IRB approach. These examples are reported in the attached returns for Bank XYZ.

(A) Corporate, Sovereign and Bank Exposures

- For simplicity reasons, Bank XYZ is assumed to have one internal rating system for all of its corporate, sovereign and bank exposures. This internal rating system comprises 8 obligor grades, each associated with a PD estimate as given in Tables A and B below. Table A gives the risk-weights for SME Corporates while Table B gives the risk-weights for Other Corporates.

**Table A: Bank XYZ's Internal Rating System for
Corporate, Sovereign and Bank Exposures – SME Corporates**
(M = 2.5 years ; obligor's reported annual sales = HK\$50 Mn)

Grade	Non-defaulted (P) / Defaulted (D)	PD	IRB Risk-Weight (RW)			
			LGD: 75%	LGD:45%	LGD:40%	LGD:35%
1	P	0.05%	25.66%	15.40%	13.69%	11.97%
2	P	0.25%	65.01%	39.01%	34.67%	30.34%
3	P	0.75%	108.57%	65.14%	57.90%	50.67%
4	P	1.50%	136.85%	82.11%	72.99%	63.87%
5	P	3.00%	162.63%	97.58%	86.74%	75.90%
6	P	6.00%	199.14%	119.48%	106.21%	92.93%
7	P	20.00%	314.03%	188.42%	167.48%	146.55%
8	D	100.00%	-	-	-	-

**Table B: Bank XYZ's Internal Rating System for
Corporate, Sovereign and Bank Exposures – Other Corporates**
(M = 2.5 years)

Grade	Non-defaulted (P) / Defaulted (D)	PD	IRB Risk-Weight (RW)			
			LGD: 75%	LGD:45%	LGD:40%	LGD:35%
1	P	0.05%	32.75%	19.65%	17.47%	15.28%
2	P	0.25%	82.45%	49.47%	43.97%	38.48%
3	P	0.75%	137.96%	82.78%	73.58%	64.38%
4	P	1.50%	175.99%	105.59%	93.86%	82.13%
5	P	3.00%	214.07%	128.44%	114.17%	99.90%
6	P	6.00%	266.02%	159.61%	141.88%	124.14%
7	P	20.00%	397.05%	238.23%	211.76%	185.29%
8	D	100.00%	-	-	-	-

(i) Example 1 (Corporate exposure with on-balance sheet netting)

Corporate A, classified as grade 5 under the Bank XYZ's internal rating system, borrowed a senior (i.e. not subordinated) loan of HK\$100 Mn from Bank XYZ. Corporate A has also placed a pledged deposit of HK\$10 Mn with Bank XYZ. Both the loan and the pledged deposit are subject to a valid bilateral netting agreement.

Given:

- Corporate A's group total annual sales = HK\$500 Mn or more
- Specific provision = HK\$1 Mn
- No currency and maturity mismatch between the loan and the pledged deposit

Workings:

- Estimated PD (grade 5) for Corporate A = 3%
- LGD = 40%
- RW = 114.17%
- M = 2.5 years

(a) Exposures *before* recognized guarantees/credit derivative contracts:

(1) On-balance sheet exposures *before* netting = HK\$100 Mn

(2) On-balance sheet exposures *after* netting

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

$$= \text{HK\$100 Mn} - \text{HK\$10 Mn}$$

$$= \underline{\underline{\text{HK\$90 Mn}}}$$

(b) Exposures *after* recognized guarantees/credit derivative contracts (on-balance sheet exposures after netting) = HK\$90 Mn (i.e. EAD)

(c) Risk-weighted amount of the exposure to Corporate A

$$= \text{EAD} \times \text{RW}$$

$$= \text{HK\$90 Mn} \times 1.1417$$

$$= \underline{\underline{\text{HK\$102.753 Mn}}}$$

(d) EL-eligible provisions calculation:

(1) EL amount

$$= \text{EAD} \times \text{PD} \times \text{LGD}$$

$$= \text{HK\$90 Mn} \times 0.03 \times 0.40$$

$$= \underline{\underline{\text{HK\$1.08 Mn}}}$$

(2) Eligible provisions = HK\$1 Mn

(ii) Example 2 (SME corporate exposure partially guaranteed by a bank)

Corporate B, classified as grade 5 under the Bank XYZ's internal rating system, borrowed a subordinated loan of HK\$100 Mn from Bank XYZ. HK\$40 Mn of this

exposure is guaranteed by Bank C, classified as grade 2 under the Bank XYZ's internal rating system. The guaranteed commitment is a senior claim on Bank C.

Given:

- Corporate B's group total annual revenue = HK\$50 Mn or below
- Specific provision = HK\$1.72 Mn
- No currency and maturity mismatch between the transaction and the guarantee
- PD substitution

Workings:

Corporate B:

- Estimated PD (grade 5) for Corporate B = 3%
- LGD of the uncovered portion = 75%
- RW = 162.63%
- M = 2.5 years

(a) Exposures *before recognized* guarantees/credit derivative contracts (on-balance sheet exposures before/after netting) = HK\$100 Mn

(b) Exposures *after* recognized guarantees/credit derivative contracts (on-balance sheet exposures after netting)
= HK\$100 - HK\$40 Mn
= HK\$60 Mn (i.e. EAD)

(c) Risk-weighted amount for the exposure to Corporate B (i.e. portion not covered by the guarantee issued by Bank C)
= EAD x RW
= HK\$60 Mn x 1.6263
= HK\$97.578 Mn

(d) EL-eligible provisions calculation:

(1) EL amount
= EAD x PD x LGD
= HK\$60 Mn x 0.03 x 0.75
= HK\$1.35 Mn

(2) Eligible provisions
= HK\$1.72 Mn x 60/100 (or a risk-weighted basis, such as based on the EL amount i.e. $1.35/(1.35 + 0.045)$)
= HK\$1.032 Mn

Bank C:

- Estimated PD (grade 2) for Bank C = 0.25%
- LGD of the guaranteed portion = 45%

- $RW = 49.47\%$
 - $M = 2.5$ years
- (e) Exposures *after* recognized guarantees/credit derivative contracts (on-balance sheet exposures after netting) = HK\$40 Mn (i.e. EAD)
- (f) Risk-weighted amount of the exposure to Bank C (i.e. the guaranteed portion)
 $= EAD \times RW$
 $= HK\$40 \text{ Mn} \times 0.4947$
 $= \underline{HK\$19.788 \text{ Mn}}$
- (g) EL-eligible provisions calculation:
- (1) EL amount
 $= EAD \times PD \times LGD$
 $= HK\$40 \text{ Mn} \times 0.0025 \times 0.45$
 $= \underline{HK\$0.045 \text{ Mn}}$
 - (2) Eligible provisions
 $= HK\$1.72 \text{ Mn} \times 40/100$ (or a risk-weighted basis, such as based on the EL amount i.e. $0.045/(1.35 + 0.045)$)
 $= \underline{HK\$0.688 \text{ Mn}}$

(iii) Example 3 (Secured corporate exposure fully guaranteed by a sovereign)

Corporate D, classified as grade 5 under the Bank XYZ's internal rating system, borrowed a senior loan of HK\$100 Mn from Bank XYZ. The transaction is secured by a BBB rated six-year corporate **bond** of HK\$40 Mn and another recognized IRB collateral of HK\$50 Mn. Also, the exposure is fully guaranteed by Central Bank E which is classified as grade 4 under the Bank XYZ's internal rating system.

Given:

- Corporate D's group total annual revenue = HK\$500 Mn or more
- Haircut for the BBB rated six-year corporate bond (i.e. credit quality grade 3 of residual maturity >5 years) = 12%
- **Haircut for recognized IRB collateral = 40%**
- No currency and maturity mismatch between the transaction and the collateral/guarantee
- No specific provisions made

Workings:

Corporate D:

- Estimated PD (grade 5) for Corporate D = 3%
- $M = 2.5$ years

- (a) Exposures before recognized guarantees/credit derivative contracts (on-balance sheet exposures before/after netting) = HK\$100 Mn
- (b) Exposures after recognized guarantees/credit derivatives (on-balance sheet exposures after netting)
 = HK\$100 Mn - HK\$100 Mn
 = HK\$0 Mn
- (c) Eligible provisions = HK\$0 Mn

Sovereign E:

- Estimated PD (grade 4) for Sovereign E = 1.5%
 - M = 2.5 years
- (d) Exposures after recognized guarantees/credit derivative contracts (on-balance sheet exposures after netting) = HK\$100 Mn (i.e. EAD)

(e) **Determination of effective LGD (LGD*):**

- (1) Portion fully secured by recognized financial collateral (E_{s,1}):

$$\begin{aligned}
 &= C \times (1 - H_c - H_{fx}) \\
 &= \text{HK\$40 Mn} \times (1 - 0.12 - 0) \\
 &= \underline{\text{HK\$35.2 Mn}} \quad (\text{LGD}_{s,1} = 0\%)
 \end{aligned}$$

- (2) Portion fully secured by other recognized IRB collateral (E_{s,2}):

$$\begin{aligned}
 &= C \times (1 - H_c - H_{fx}) \\
 &= \text{HK\$50 Mn} \times (1 - 0.4 - 0) \\
 &= \text{HK\$30 Mn} \quad (\text{LGD}_{s,2} = 25\%)
 \end{aligned}$$

- (3) Unsecured portion (E_u):

$$\begin{aligned}
 &= \text{HK\$100 Mn} - \text{HK\$35.2 Mn} - \text{HK\$30 Mn} \\
 &= \underline{\text{HK\$34.8 Mn}} \quad (\text{LGD}_u = 45\%)
 \end{aligned}$$

- (4) Effective LGD:

$$\text{LGD}^* = 45\% \times \frac{34.8}{100} + 0\% \times \frac{35.2}{100} + 25\% \times \frac{30}{100} = 23.16\%$$

(The corresponding RW is 54.35% with PD = 1.5% and LGD = 23.16%)

- (f) Risk-weighted amount of the exposure to Central Bank E

$$\begin{aligned}
 &= \text{EAD} \times \text{RW} \\
 &= \text{HK\$100 Mn} \times 0.5435 \\
 &= \underline{\text{HK\$54.35 Mn}}
 \end{aligned}$$

- (g) EL-eligible provisions calculation:

$$\begin{aligned}
 (1) \quad &\underline{\text{EL amount}} \\
 &= \text{EAD} \times \text{PD} \times \text{LGD} \\
 &= \text{HK\$100 Mn} \times 0.015 \times 0.2316 \\
 &= \underline{\text{HK\$0.347 Mn}}
 \end{aligned}$$

(2) Eligible provisions = HK\$0 Mn

(iv) Example 4 (Clean Corporate exposure in defaulted grade)

Corporate F, classified as grade 8 (i.e. default) under the Bank XYZ's internal rating system, borrowed a senior unsecured loan of HK\$100 Mn from Bank XYZ.

Given:

- Specific provisions = HK\$40 Mn
- Best estimate of EL = 35%

Workings:

- Estimated PD (grade 8) for Corporate F = 100%
 - LGD = 40%
- (a) Exposures *before/after recognized* guarantees/credit derivative contracts (on-balance sheet exposures before/after netting) = HK\$100 Mn (i.e. EAD)
- (b) Risk-weighted amount of the exposure to Corporate F
= max [0, LGD - EL] x 12.5 x EAD
= (40% - 35%) x 12.5 x HK\$100 Mn
= HK\$62.5 Mn
- (c) EL-eligible provisions calculation:
- (1) EL amount
= EL x EAD
= 0.35 x HK\$100 Mn
= HK\$35 Mn
- (2) Eligible provisions = HK\$40 Mn

(B) Retail Exposures

(v) Example 5 (QRRE (revolver))

Within the exposure subclass of QRRE (revolver), Bank XYZ is using a separate internal rating system for revolving personal loans with PD estimates as given below. There are four defaulted pools with LGD estimates of 50%, 60%, 85% and 100%.

Table C: Bank XYZ's Internal Rating System for QRRE (revolver)

Pool	Non-defaulted (P) / Defaulted (D)	PD	IRB Risk Weight (RW)		
			LGD: 85%	LGD:60%	LGD:50%
1	P	0.10%	5.12%	3.61%	3.01%
2	P	0.25%	10.88%	7.68%	6.40%

Pool	Non-defaulted (P) / Defaulted (D)	PD	IRB Risk Weight (RW)		
			LGD: 85%	LGD: 60%	LGD: 50%
3	P	0.75%	26.06%	18.40%	15.33%
4	P	3.00%	73.03%	51.55%	42.96%
5	P	6.00%	116.37%	82.14%	68.45%
6	P	15.00%	196.23%	138.51%	115.43%
7	D	100.00%	-	-	-

Bank XYZ has granted an unsecured revolving loan facility of HK\$1 Mn to Mr. G, of which HK\$0.8 Mn has been drawn down and is outstanding. The exposure to Mr. G is classified in the retail pool with a PD estimate of 0.75% (i.e. grade 3) and LGD estimate of 60%.

Given:

- No specific provision made
- The undrawn portion is unconditionally cancellable with a CCF of 10%
- Estimated PD (grade 3) for Mr. G = 0.75%
- LGD = 60%
- RW = 18.40%

Workings:

(a) Exposures *before/after recognized* guarantees/credit derivative contracts:

- (1) On-balance sheet exposures before/after netting = HK\$0.8 Mn
- (2) Off-balance sheet exposures (Other than derivative contracts and SFTs)
 = Principal amount x CCF
 = (HK\$1 Mn - HK\$0.8 Mn) x 10%
 = HK\$0.02 Mn

(b) Risk-weighted amount of the exposure to Mr. G:

$$\begin{aligned}
 &= (\text{EAD} \times \text{RW})_{\text{on-balance}} + (\text{EAD} \times \text{RW})_{\text{off-balance}} \\
 &= \text{HK\$0.8 Mn} \times 0.184 + \text{HK\$0.02 Mn} \times 0.184 \\
 &= \text{HK\$0.151 Mn}
 \end{aligned}$$

(c) EL-eligible provisions calculation:

- (1) EL amount

$$\begin{aligned}
 &= (\text{EAD} \times \text{PD} \times \text{LGD})_{\text{on-balance}} + (\text{EAD} \times \text{PD} \times \text{LGD})_{\text{off-balance}} \\
 &= \text{HK\$0.8 Mn} \times 0.0075 \times 0.6 + \text{HK\$0.02 Mn} \times 0.0075 \times 0.6 \\
 &= \text{HK\$0.004 Mn}
 \end{aligned}$$
- (2) Eligible provisions = HK\$0 Mn

Annex IIIc-B: Structure of the IRB Return [MA(BS)3(IIIc)]

Division	Template	IRB Class/Subclass To Be Reported
A.	IRB_TOTCRWA	For all IRB classes/subclasses under IRB approach
B.	IRB_CSB	For each of the following IRB subclasses for corporate/sovereign/bank exposures under FIRB approach or AIRB approach: • <u>Corporate exposures:</u> (i) Small-and-medium sized corporates • <u>Corporate exposures:</u> (ii) Other corporates • <u>Corporate exposures:</u> (iii) Large corporates • <u>Corporate exposures:</u> (iv) Financial institutions treated as corporates • <u>Corporate exposures:</u> (v) Specialized Lending (project finance) • <u>Corporate exposures:</u> (vi) Specialized Lending (object finance) • <u>Corporate exposures:</u> (vii) Specialized Lending (commodities finance) • <u>Corporate exposures:</u> (viii) Specialized Lending (income-producing real estate) • <u>Corporate exposures:</u> (ix) Specialized Lending (high-volatility commercial real estate) • <u>Sovereign exposures:</u> (i) Sovereigns • <u>Sovereign exposures:</u> (ii) Sovereign foreign public sector entities • <u>Sovereign exposures:</u> (iii) Multilateral development banks • <u>Bank exposures:</u> (i) Banks (excluding covered bonds) • <u>Bank exposures:</u> (ii) Qualifying non-bank financial institutions • <u>Bank exposures:</u> (iii) Public sector entities (excluding sovereign foreign public sector entities) • <u>Bank exposures:</u> (iv) Covered bonds • <u>Bank exposures:</u> (v) Unspecified multilateral bodies
	IRB_SLSLOT	For each of the following IRB subclasses where supervisory slotting criteria approach is applicable: • <u>Corporate exposures:</u> (i) Specialized Lending (project finance) • <u>Corporate exposures:</u> (ii) Specialized Lending (object finance) • <u>Corporate exposures:</u> (iii) Specialized Lending (commodities finance) • <u>Corporate exposures:</u> (iv) Specialized Lending (income-producing real estate) • <u>Corporate exposures:</u> (v) Specialized Lending (high-volatility commercial real estate)
	IRB_RETAIL	For each of the following IRB subclasses for retail exposures under retail IRB approach: • <u>Retail exposures:</u> (i) Residential mortgages to individuals • <u>Retail exposures:</u> (ii) Residential mortgages to property-holding shell companies • <u>Retail exposures:</u> (iii) Qualifying revolving retail exposures (transactor) • <u>Retail exposures:</u> (iv) Qualifying revolving retail exposures (revolver) • <u>Retail exposures:</u> (v) Small business retail exposures • <u>Retail exposures:</u> (vi) Other retail exposures to individuals

Division	Template	IRB Class/Subclass To Be Reported
	IRB_CIS	CIS exposures: CIS exposures
	IRB_OTHER	For cash items and other items under specific risk-weight approach
C.	IRB_FIRBLGD	For each of the IRB subclasses for corporate/sovereign/bank exposures reported under FIRB approach in Division B
	IRB_AIRBLGD	For each of the IRB subclasses for corporate/sovereign exposures reported under AIRB approach in Division B
	IRB_RETAILIRBLGD	For each of the IRB subclasses for retail exposures reported under retail IRB approach in Division B
D.	IRB_OBSND	For the IRB classes of corporate/sovereign/bank/retail exposures under IRB approach
E.	IRB_OBSD_SACCR	For the IRB classes of corporate/sovereign/bank/retail exposures under IRB approach: Default risk exposures in respect of derivative contracts under SA-CCR approach
	IRB_OBSD_SFT_N_IMM	For the IRB classes of corporate/sovereign/bank/retail exposures under IRB approach: Default risk exposures in respect of SFTs not under IMM(CCR) approach
	IRB_OBSD_IMM	For the IRB classes of corporate/sovereign/bank/retail exposures under IRB approach: Default risk exposures under IMM(CCR) approach
F.	IRB_ELEP	For the IRB classes of corporate/sovereign/bank/retail exposures under IRB approach

Annex IIIc-C: **Illustrative Risk-weights under IRB Approach**

IRB Class / Subclass	Corporate Exposures		Residential Mortgages		Small Business Retail Exposures and Other Retail Exposures to Individuals		Qualifying Revolving Retail Exposures (Transactor or Revolver)	
LGD:	40%	40%	45%	25%	45%	85%	50%	85%
Maturity 2.5 years								
Annual revenue (HK\$ Mn)	500	50						
PD: 0.05%	17.47%	13.69%	6.23%	3.46%	6.63%	12.52%	1.68%	2.86%
0.10%	26.36%	20.71%	10.69%	5.94%	11.16%	21.08%	3.01%	5.12%
0.25%	43.97%	34.68%	21.30%	11.83%	21.15%	39.96%	6.40%	10.88%
0.40%	55.75%	43.99%	29.94%	16.64%	28.42%	53.69%	9.34%	15.88%
0.50%	61.88%	48.81%	35.08%	19.49%	32.36%	61.13%	11.16%	18.97%
0.75%	73.58%	57.91%	46.46%	25.81%	40.10%	75.74%	15.33%	26.06%
1.00%	82.06%	64.35%	56.40%	31.33%	45.77%	86.46%	19.14%	32.53%
1.30%	89.73%	70.02%	67.00%	37.22%	50.80%	95.95%	23.35%	39.70%
1.50%	93.86%	72.99%	73.45%	40.80%	53.37%	100.81%	25.99%	44.19%
2.00%	102.09%	78.71%	87.94%	48.85%	57.99%	109.53%	32.14%	54.63%
2.50%	108.58%	83.05%	100.64%	55.91%	60.90%	115.03%	37.75%	64.18%
3.00%	114.17%	86.74%	111.99%	62.22%	62.79%	118.61%	42.96%	73.03%
4.00%	124.07%	93.37%	131.63%	73.13%	65.01%	122.80%	52.4%	89.08%
5.00%	133.20%	99.79%	148.22%	82.35%	66.42%	125.45%	60.83%	103.41%
6.00%	141.88%	106.21%	162.52%	90.29%	67.73%	127.94%	68.45%	116.37%
10.00%	171.63%	130.23%	204.41%	113.56%	75.54%	142.69%	93.21%	158.47%
15.00%	196.92%	152.81%	235.72%	130.96%	88.60%	167.36%	115.43%	196.23%
20.00%	211.76%	167.48%	253.12%	140.62%	100.28%	189.41%	131.09%	222.86%

Note:

- The above table provides illustrative risk-weights for UL calculated for the IRB class of corporate exposures and the IRB subclasses of retail exposures under the IRB approach. Each set of risk-weights is produced using the appropriate risk-weight functions. The inputs used to calculate the illustrative risk weights include measures of PD and LGD and an assumed M of 2.5 years.
- A firm-size adjustment applies to exposures falling within the IRB subclass of small-and-medium sized corporates (defined as exposures to a corporate where the reported total annual sales for the consolidated group of which the corporate is a part is less than HK\$500 million). Accordingly, the firm-size adjustment is made in determining the second set of risk-weights provided in the second column of corporate exposures given that the annual sales of the corporate receiving the exposure is assumed to be HK\$50 million.

Part IIIc: Risk-weighted Amount for Credit Risk (IRB Approach)
Division A: Summary of Risk-weighted Amount for Credit Risk under IRB Approach

IRB_TOTCRWA
(in HK\$'000)

Item	IRB Class	Number of Corresponding Forms Reported under Division B (1)	Risk-weighted Amount		
			(2)	(3)	(4)
1.	Corporate exposures, of which				262,831
	(a) Specialized lending (project finance)	() Form IRB_SLSLOT and () Form IRB_CSB			
	(b) Specialized lending (object finance)	() Form IRB_SLSLOT and () Form IRB_CSB			
	(c) Specialized lending (commodities finance)	() Form IRB_SLSLOT and () Form IRB_CSB			
	(d) Specialized lending (income-producing real estate)	() Form IRB_SLSLOT and () Form IRB_CSB			
	(e) Specialized lending (high-volatility commercial real estate)	() Form IRB_SLSLOT and () Form IRB_CSB			
	(f) Small-and-medium sized corporates	(1) Form IRB_CSB		97,578	
	(g) Large corporates	() Form IRB_CSB			
	(h) Financial institutions treated as corporates	() Form IRB_CSB			
	(i) Other corporates	(1) Form IRB_CSB		165,253	
2.	Sovereign exposures, of which				54,350
	(a) Sovereigns	(1) Form IRB_CSB		54,350	
	(b) Sovereign foreign public sector entities	() Form IRB_CSB			
	(c) Multilateral development banks	() Form IRB_CSB			
3.	Bank exposures, of which				19,788
	(a) Banks (excluding covered bonds)	(1) Form IRB_CSB		19,788	
	(b) Qualifying non-bank financial institutions	() Form IRB_CSB			
	(c) Public sector entities (excluding sovereign foreign public sector entities)	() Form IRB_CSB			
	(d) Covered bonds	() Form IRB_CSB			
	(e) Unspecified multilateral bodies	() Form IRB_CSB			
4.	Retail exposures, of which				151
	(a) Residential mortgages				
	(i) Individuals	() Form IRB_RETAIL			
	(ii) Property-holding shell companies	() Form IRB_RETAIL			
	(b) Qualifying revolving retail exposures (transactor)	() Form IRB_RETAIL			
	(c) Qualifying revolving retail exposures (revolver)	(1) Form IRB_RETAIL		151	
	(d) Small business retail exposures	() Form IRB_RETAIL			
	(e) Other retail exposures to individuals	() Form IRB_RETAIL			
5.	CIS exposures, of which				
	(a) Look-through approach	() Form IRB_CIS			
	(b) Third-party approach	() Form IRB_CIS			
	(c) Mandate-based approach	() Form IRB_CIS			
	(d) Fall-back approach	() Form IRB_CIS			
	(e) Combination of approaches	() Form IRB_CIS			
6.	Other exposures	() Form IRB_OTHER			
7.	Total risk-weighted amount for credit risk (IRB Approach) [Item 7 = Item 1 + Item 2 + Item 3 + Item 4 + Item 5 + Item 6], of which				337,120
	(a) Risk-weighted amount of default risk exposures in respect of derivative contracts and SFTs not subject to IMM(CCR) Approach				
	(b) Risk-weighted amount of default risk exposures in respect of derivative contracts and SFTs subject to IMM(CCR) Approach				
	(c) Risk-weighted amount of exposures subject to asset value correlation multiplier of 1.25				

Division B: Risk-weighted Amount by IRB Class / Subclass

IRB_CSB

Name of the AI: XYZ Bank

IRB Class : Corporate Exposures / Sovereign Exposures / Bank Exposures (delete where inapplicable)

IRB Approach : Foundation IRB Approach / Advanced IRB Approach (delete where inapplicable)

IRB Subclass : Small-and-medium Sized Corporates / Other Corporates / Large Corporates / Financial Institutions Treated as Corporates / Specialized Lending (Project Finance) / Specialized Lending (Object Finance) / Specialized Lending (Commodities Finance) / Specialized Lending (Income-producing Real Estate) / Specialized Lending (High-volatility Commercial Real Estate) / Sovereigns / Sovereign Foreign Public Sector Entities / Multilateral Development Banks / Banks (Excluding Covered Bonds) / Qualifying Non-bank Financial Institutions / Public Sector Entities (Excluding Sovereign Foreign Public Sector Entities) / Covered Bonds / Unspecified Multilateral Bodies (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

Internal Rating System					EAD Calculation							Exposure Weighted Average LGD	Exposure Weighted Average Maturity Value	Risk-weighted Amount			Memorandum Items		
Obligor grade		PD range			Exposures before recognized guarantees / credit derivative contracts				Exposures after recognized guarantees / credit derivative contracts								EAD	Expected loss amount	Number of obligors
Non-defaulted (N) / Defaulted (D)		Lower bound	Upper bound	Average PD	On-balance sheet exposures		Off-balance sheet exposures		On-balance sheet exposures after netting	Off-balance sheet exposures				Of which: For dilution risk (a)	Of which: For residual value risk (b)				
(1)	(2)	(3)	(4)	(5)	(6)(i)	(6)(ii)	(7)	(8)		(9)	(10)	(11)	(12) = (9)+(10)+(11)	(13)	(14)	(15)	(16)	(17)	(18)
1	N	0.05	0.05	0.05															
2	N	0.25	0.25	0.25															
3	N	0.75	0.75	0.75															
4	N	1.50	1.50	1.50															
5	N	3.00	3.00	3.00	200,000 (A)&(D)	190,000 (A)&(D)			90,000 (A)			90,000 (A)	40.00	2.50	102,753 (A)			1,080 (A)	1
6	N	6.00	6.00	6.00								-							
7	N	20.00	20.00	20.00								-							
8	D	100.00	100.00	100.00	100,000 (F)	100,000 (F)			100,000 (F)			100,000 (F)	40.00	2.50	62,500 (F)			35,000 (F)	1
Total:					300,000	290,000	-	-	190,000	-	-	190,000			165,253			36,080	2
(to Division A)																			
Of which: Exposures subject to asset value correlation multiplier of 1.25																			

(a) This column is only applicable to purchased receivables.
(b) This column is only applicable to leasing transactions that expose the reporting AI to residual value risk.

Division B: Risk-weighted Amount by IRB Class / Subclass

IRB_CSB

Name of the AI: XYZ Bank

IRB Class : Corporate Exposures / ~~Sovereign Exposures~~ / ~~Bank Exposures~~ (delete where inapplicable)

IRB Approach : Foundation IRB Approach / ~~Advanced IRB Approach~~ (delete where inapplicable)

IRB Subclass : Small-and-medium Sized Corporates / ~~Other Corporates~~ / ~~Large Corporates~~ / ~~Financial Institutions Treated as Corporates~~ / ~~Specialized Lending (Project Finance)~~ / ~~Specialized Lending (Object Finance)~~ / ~~Specialized Lending (Commodities Finance)~~ / ~~Specialized Lending (Income-producing Real Estate)~~ / ~~Specialized Lending (High-volatility Commercial Real Estate)~~ / ~~Sovereigns~~ / ~~Sovereign Foreign Public Sector Entities~~ / ~~Multilateral Development Banks~~ / ~~Banks (Excluding Covered Bonds)~~ / ~~Qualifying Non-bank Financial Institutions~~ / ~~Public Sector Entities (Excluding Sovereign Foreign Public Sector Entities)~~ / ~~Covered Bonds~~ / ~~Unspecified Multilateral Bodies~~ (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

Internal Rating System					EAD Calculation								Exposure Weighted Average LGD	Exposure Weighted Average Maturity Value	Risk-weighted Amount			Memorandum Items	
Obligor grade		PD range			Exposures before recognized guarantees / credit derivative contracts				Exposures after recognized guarantees / credit derivative contracts									EAD	Expected loss amount
Non-defaulted (N) / Defaulted (D)		Lower bound	Upper bound	Average PD	On-balance sheet exposures		Off-balance sheet exposures		On-balance sheet exposures after netting	Off-balance sheet exposures		Of which: For dilution risk (a)			Of which: For residual value risk (b)				
(1)	(2)	(3)	(4)	(5)	(6)(i)	(6)(ii)	(7)	(8)		(9)	(10)		(11)	(12) = (9)+(10)+(11)		(13)	(14)	(15)	(16)
1	N	0.05	0.05	0.05															
2	N	0.25	0.25	0.25															
3	N	0.75	0.75	0.75															
4	N	1.50	1.50	1.50															
5	N	3.00	3.00	3.00	100,000 (B)	100,000 (B)			60,000 (B)			60,000 (B)	75.00	2.50	97,578 (B)			1,350 (B)	1
6	N	6.00	6.00	6.00								-							
7	N	20.00	20.00	20.00								-							
8	D	100.00	100.00	100.00															
Total:					100,000	100,000	-	-	60,000	-	-	60,000			97,578			1,350	1
(to Division A)																			
Of which: Exposures subject to asset value correlation multiplier of 1.25																			

(a) This column is only applicable to purchased receivables.
(b) This column is only applicable to leasing transactions that expose the reporting AI to residual value risk.

Division B: Risk-weighted Amount by IRB Class / Subclass

IRB_CSB

Name of the AI: XYZ Bank

IRB Class : Corporate Exposures / Sovereign Exposures / Bank Exposures (delete where inapplicable)

IRB Approach : Foundation IRB Approach / Advanced IRB Approach (delete where inapplicable)

IRB Subclass : Small-and-medium Sized Corporates / Other Corporates / Large Corporates / Financial Institutions Treated as Corporates / Specialized Lending (Project Finance) / Specialized Lending (Object Finance) / Specialized Lending (Commodities Finance) / Specialized Lending (Income-producing Real Estate) / Specialized Lending (High-volatility Commercial Real Estate) / Sovereigns / Sovereign Foreign Public Sector Entities / Multilateral Development Banks / Banks (Excluding Covered Bonds) / Qualifying Non-bank Financial Institutions / Public Sector Entities (Excluding Sovereign Foreign Public Sector Entities) / Covered Bonds / Unspecified Multilateral Bodies (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

Internal Rating System					EAD Calculation								Exposure Weighted Average LGD	Exposure Weighted Average Maturity Value	Risk-weighted Amount			Memorandum Items		
Obligor grade		PD range			Exposures before recognized guarantees / credit derivative contracts				Exposures after recognized guarantees / credit derivative contracts									EAD	Expected loss amount	Number of obligors
					On-balance sheet exposures		Off-balance sheet exposures		On-balance sheet exposures after netting	Off-balance sheet exposures										
					before netting	after netting	Other than derivative contracts and SFTs	Derivative contracts and SFTs		Other than derivative contracts and SFTs	Derivative contracts and SFTs									
Non-defaulted (N) / Defaulted (D)	Lower bound	Upper bound	Average PD												Of which: For dilution risk (a)	Of which: For residual value risk (b)				
(1)	(2)	(3)	(4)	(5)	(6)(i)	(6)(ii)	(7)	(8)	(9)	(10)	(11)	(12) = (9)+(10)+(11)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
1	N	0.05	0.05	0.05																
2	N	0.25	0.25	0.25																
3	N	0.75	0.75	0.75																
4	N	1.50	1.50	1.50					100,000 (E)			100,000 (E)	23.16	2.50	54,350 (E)			347 (E)	1	
5	N	3.00	3.00	3.00																
6	N	6.00	6.00	6.00																
7	N	20.00	20.00	20.00																
8	D	100.00	100.00	100.00																
Total:									100,000	-	-	100,000			54,350			347	1	
(to Division A)																				
Of which: Exposures subject to asset value correlation multiplier of 1.25																				

(a) This column is only applicable to purchased receivables.
(b) This column is only applicable to leasing transactions that expose the reporting AI to residual value risk.

Division B: Risk-weighted Amount by IRB Class / Subclass

IRB_CSB

Name of the AI: XYZ Bank

IRB Class : Corporate Exposures / Sovereign Exposures / Bank Exposures (delete where inapplicable)

IRB Approach : Foundation IRB Approach / Advanced IRB Approach (delete where inapplicable)

IRB Subclass : Small-and-medium Sized Corporates / Other Corporates / Large Corporates / Financial Institutions Treated as Corporates / Specialized Lending (Project Finance) / Specialized Lending (Object Finance) / Specialized Lending (Commodities Finance) / Specialized Lending (Income-producing Real Estate) / Specialized Lending (High-volatility Commercial Real Estate) / Sovereigns / Sovereign Foreign Public Sector Entities / Multilateral Development Banks / Banks (Excluding Covered Bonds) / Qualifying Non-bank Financial Institutions / Public Sector Entities (Excluding Sovereign Foreign Public Sector Entities) / Covered Bonds / Unspecified Multilateral Bodies (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

Internal Rating System					EAD Calculation								Exposure Weighted Average LGD	Exposure Weighted Average Maturity Value	Risk-weighted Amount			Memorandum Items		
Obligor grade		PD range			Exposures before recognized guarantees / credit derivative contracts				Exposures after recognized guarantees / credit derivative contracts									EAD	Expected loss amount	Number of obligors
					On-balance sheet exposures		Off-balance sheet exposures		On-balance sheet exposures after netting	Off-balance sheet exposures										
					before netting	after netting	Other than derivative contracts and SFTs	Derivative contracts and SFTs		Other than derivative contracts and SFTs	Derivative contracts and SFTs									
Non-defaulted (N) / Defaulted (D)	Lower bound	Upper bound	Average PD																	
(1)	(2)	(3)	(4)	(5)	(6)(i)	(6)(ii)	(7)	(8)	(9)	(10)	(11)	(12) = (9)+(10)+(11)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
1	N	0.05	0.05	0.05																
2	N	0.25	0.25	0.25					40,000 (C)			40,000 (C)	45.00	2.50	19,788 (C)			45 (C)	1	
3	N	0.75	0.75	0.75																
4	N	1.50	1.50	1.50																
5	N	3.00	3.00	3.00																
6	N	6.00	6.00	6.00																
7	N	20.00	20.00	20.00																
8	D	100.00	100.00	100.00																
Total:									40,000	-	-	40,000			19,788			45	1	
(to Division A)																				
Of which: Exposures subject to asset value correlation multiplier of 1.25																				

(a) This column is only applicable to purchased receivables.
(b) This column is only applicable to leasing transactions that expose the reporting AI to residual value risk.

Division B: Risk-weighted Amount by IRB Class / Subclass

IRB_RETAIL

Name of the AI: XYZ Bank

IRB Class : Retail Exposures

IRB Approach: Retail IRB Approach

IRB Subclass : Residential Mortgages to Individuals / Residential Mortgages to Property-holding Shell Companies / Qualifying Revolving Retail Exposures (Transactor) / Qualifying Revolving Retail Exposures (Revolver) / Small Business Retail Exposures / Other Retail Exposures to Individuals (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

(in HK\$'000)

Internal Rating System					EAD Calculation							LGD	Risk-weighted Amount			Memorandum Items		
Pool		PD range			Exposures before recognized guarantees / credit derivative contracts				Exposures after recognized guarantees / credit derivative contracts							EAD	Expected loss amount	Number of obligors
					On-balance sheet exposures		Off-balance sheet exposures		On-balance sheet exposures after netting	Off-balance sheet exposures								
Non-defaulted (N) / Defaulted (D)	Lower bound	Upper bound	Average PD	before netting	after netting	Other than derivative contracts and SFTs	Derivative contracts and SFTs			Other than derivative contracts and SFTs	Derivative contracts and SFTs			Of which: For dilution risk (a)	Of which: For residual value risk (b)			
(1)	(2)	(3)	(4)	(5)	(6)(i)	(6)(ii)	(7)	(8)	(9)	(10)	(11)	(12) = (9)+(10)+(11)	(13)	(14)	(15)	(16)	(17)	(18)
1	N	0.05	0.05	0.05									50.00					
2	N	0.05	0.05	0.05									60.00					
3	N	0.05	0.05	0.05									85.00					
4	N	0.25	0.25	0.25									50.00					
5	N	0.25	0.25	0.25									60.00					
6	N	0.25	0.25	0.25									85.00					
7	N	0.75	0.75	0.75									50.00					
8	N	0.75	0.75	0.75	800 (G)	800 (G)	20 (G)		800 (G)	20 (G)		820 (G)	60.00	151 (G)			4 (G)	1
9	N	0.75	0.75	0.75									85.00					
10	N	3.00	3.00	3.00									50.00					
11	N	3.00	2.00	3.00									60.00					
12	N	3.00	3.00	3.00									85.00					
13	N	6.00	6.00	6.00									50.00					
14	N	6.00	6.00	6.00									60.00					
15	N	6.00	6.00	6.00									85.00					
16	N	15.00	15.00	15.00									50.00					
17	N	15.00	15.00	15.00									60.00					
18	N	15.00	15.00	15.00									85.00					
19	D	100.00	100.00	100.00									50.00					
20	D	100.00	100.00	100.00									60.00					
21	D	100.00	100.00	100.00									85.00					
22	D	100.00	100.00	100.00									100.00					
Total:					800	800	20	-	800	20	-	820		151	-	-	4	1

(to Division A)

(a) This column is only applicable to purchased receivables.

(b) This column is only applicable to leasing transactions that expose the AI to residual value risk.

Division C: LGD for Corporate, Sovereign, Bank and Retail Exposures

IRB_FIRBLGD

Name of the AI: XYZ Bank

IRB Approach: Foundation IRB Approach

IRB Class : Corporate Exposures / ~~Sovereign Exposures~~ / ~~Bank Exposures~~ (delete where inapplicable)

IRB Subclass : ~~Small-and-medium-Sized Corporates~~ / ~~Other Corporates~~ / ~~Large Corporates~~ / ~~Financial Institutions Treated as Corporates~~ / ~~Specialized Lending (Project Finance)~~ / ~~Specialized Lending (Object Finance)~~ / ~~Specialized Lending (Commodities Finance)~~ / ~~Specialized Lending (Income-producing Real Estate)~~ / ~~Specialized Lending (High-volatility Commercial Real Estate)~~ / ~~Sovereigns~~ / ~~Sovereign Foreign Public Sector Entities~~ / ~~Multilateral Development Banks~~ / ~~Banks (Excluding Covered Bonds)~~ / ~~Qualifying Non-bank Financial Institutions~~ / ~~Public Sector Entities (Excluding Sovereign Foreign Public Sector Entities)~~ / ~~Covered Bonds~~ / ~~Unspecified Multilateral Bodies~~ (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

(in HK\$'000)												
Obligor grade		EAD	LGD									
Average PD (%) (1) (2)		Total (3) = (4)+(5)+ ...+(11)+(12)	EAD by facility / collateral type									Exposure weighted average LGD (to Division B) (%) (13)
			(i) Exposures with specific wrong-way risk	(ii) Subordinated exposures	(iii) Unsecured senior exposures	(iv) Unsecured senior exposures	(v) Other recognized IRB collateral	(vi) Recognized commercial real estate	(vii) Recognized residential real estate	(viii) Recognized financial receivables	(ix) Recognized financial collateral	
			LGD: 100%	LGD: 75%	LGD: 45%	LGD: 40%	LGD: 25%	LGD: 20%	LGD: 20%	LGD: 20%	LGD: 0%	
			(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1	0.03	-										
2	0.25	-										
3	0.75	-										
4	1.50	-										
5	3.00	90, 000 (A)				90,000 (A)						40.00
6	6.00	-										
7	20.00	-										
8	100.00	100,000 (F)				100,000 (F)						40.00
Total :		190,000	-	-	-	190,000	-	-	-	-	-	

Division C: LGD for Corporate, Sovereign, Bank and Retail Exposures

IRB_FIRBLGD

Name of the AI: XYZ Bank

IRB Approach: Foundation IRB Approach

IRB Class : Corporate Exposures / ~~Sovereign Exposures~~ / ~~Bank Exposures~~ (delete where inapplicable)

IRB Subclass : ~~Small-and-medium Sized Corporates~~ / ~~Other Corporates~~ / ~~Large Corporates~~ / ~~Financial Institutions Treated as Corporates~~ / ~~Specialized Lending (Project Finance)~~ / ~~Specialized Lending (Object Finance)~~ / ~~Specialized Lending (Commodities Finance)~~ / ~~Specialized Lending (Income-producing Real Estate)~~ / ~~Specialized Lending (High-volatility Commercial Real Estate)~~ / ~~Sovereigns~~ / ~~Sovereign Foreign Public Sector Entities~~ / ~~Multilateral Development Banks~~ / ~~Banks (Excluding Covered Bonds)~~ / ~~Qualifying Non-bank Financial Institutions~~ / ~~Public Sector Entities (Excluding Sovereign Foreign Public Sector Entities)~~ / ~~Covered Bonds~~ / ~~Unspecified Multilateral Bodies~~ (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

(in HK\$'000)												
Obligor grade		EAD	LGD									
Average PD (%) (1) (2)		Total (3) = (4)+(5)+ ...+(11)+(12)	EAD by facility / collateral type									Exposure weighted average LGD (to Division B) (%) (13)
			(i) Exposures with specific wrong-way risk	(ii) Subordinated exposures	(iii) Unsecured senior exposures	(iv) Unsecured senior exposures	(v) Other recognized IRB collateral	(vi) Recognized commercial real estate	(vii) Recognized residential real estate	(viii) Recognized financial receivables	(ix) Recognized financial collateral	
			LGD: 100%	LGD: 75%	LGD: 45%	LGD: 40%	LGD: 25%	LGD: 20%	LGD: 20%	LGD: 20%	LGD: 0%	
			(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1	0.03	-										
2	0.25	-										
3	0.75	-										
4	1.50	-										
5	3.00	60,000 (B)		60,000 (B)								75.00
6	6.00	-										
7	20.00	-										
8	100.00	-										
Total :		60,000	-	60,000	-	-	-	-	-	-	-	

Division C: LGD for Corporate, Sovereign, Bank and Retail Exposures

IRB_FIRBLGD

Name of the AI: XYZ Bank

IRB Approach: Foundation IRB Approach

IRB Class : Corporate Exposures / Sovereign Exposures / Bank Exposures (delete where inapplicable)

IRB Subclass : Small-and-medium Sized Corporates / Other Corporates / Large Corporates / Financial Institutions Treated as Corporates / Specialized Lending (Project Finance) / Specialized Lending (Object Finance) / Specialized Lending (Commodities Finance) / Specialized Lending (Income-producing Real Estate) / Specialized Lending (High-volatility Commercial Real Estate) / Sovereigns / Sovereign Foreign Public Sector Entities / Multilateral Development Banks / Banks (Excluding Covered Bonds) / Qualifying Non-bank Financial Institutions / Public Sector Entities (Excluding Sovereign Foreign Public Sector Entities) / Covered Bonds / Unspecified Multilateral Bodies (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

(in HK\$'000)												
Obligor grade		EAD	LGD									
Average PD (%) (1) (2)		Total (3) = (4)+(5)+ ...+(11)+(12)	EAD by facility / collateral type									Exposure weighted average LGD (to Division B) (%) (13)
			(i) Exposures with specific wrong-way risk	(ii) Subordinated exposures	(iii) Unsecured senior exposures	(iv) Unsecured senior exposures	(v) Other recognized IRB collateral	(vi) Recognized commercial real estate	(vii) Recognized residential real estate	(viii) Recognized financial receivables	(ix) Recognized financial collateral	
			LGD: 100%	LGD: 75%	LGD: 45%	LGD: 40%	LGD: 25%	LGD: 20%	LGD: 20%	LGD: 20%	LGD: 0%	
			(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1	0.03	-										
2	0.25	-										
3	0.75	-										
4	1.50	100,000 (E)			34,800 (E)		30,000 (E)				35,200 (E)	23.16
5	3.00	-										
6	6.00	-										
7	20.00	-										
8	100.00	-										
Total :		100,000	-	-	34,800	-	30,000	-	-	-	35,200	

Division C: LGD for Corporate, Sovereign, Bank and Retail Exposures

IRB_FIRBLGD

Name of the AI: XYZ Bank

IRB Approach: Foundation IRB Approach

IRB Class : Corporate Exposures / Sovereign Exposures / Bank Exposures (delete where inapplicable)

IRB Subclass : Small-and-medium-sized Corporates / Other Corporates / Large Corporates / Financial Institutions Treated as Corporates / Specialized Lending (Project Finance) / Specialized Lending (Object Finance) / Specialized Lending (Commodities Finance) / Specialized Lending (Income-producing Real Estate) / Specialized Lending (High-volatility Commercial Real Estate) / Sovereigns / Sovereign Foreign Public Sector Entities / Multilateral Development Banks / Banks (Excluding Covered Bonds) / Qualifying Non-bank Financial Institutions / Public Sector Entities (Excluding Sovereign Foreign Public Sector Entities) / Covered Bonds / Unspecified Multilateral Bodies (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

(in HK\$'000)												
Obligor grade		EAD	LGD									
Average PD (%) (1) (2)		Total (3) = (4)+(5)+ ...+(11)+(12)	EAD by facility / collateral type									Exposure weighted average LGD (to Division B) (%) (13)
			(i) Exposures with specific wrong-way risk	(ii) Subordinated exposures	(iii) Unsecured senior exposures	(iv) Unsecured senior exposures	(v) Other recognized IRB collateral	(vi) Recognized commercial real estate	(vii) Recognized residential real estate	(viii) Recognized financial receivables	(ix) Recognized financial collateral	
			LGD: 100%	LGD: 75%	LGD: 45%	LGD: 40%	LGD: 25%	LGD: 20%	LGD: 20%	LGD: 20%	LGD: 0%	
			(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1	0.05											
2	0.25	40,000 (C)			40,000 (C)							45.00
3	0.75											
4	1.50											
5	3.00											
6	6.00											
7	20.00											
8	100.00											
Total :		40,000	-	-	40,000	-	-	-	-	-	-	

IRB_RETAILIRBLGD

IRB Approach:	Retail IRB Approach
1. Identify the risk 2. Assess the risk 3. Develop a risk management plan 4. Implement the risk management plan 5. Monitor and report on the risk 6. Review and update the risk management plan	1. Identify the risk 2. Assess the risk 3. Develop a risk management plan 4. Implement the risk management plan 5. Monitor and report on the risk 6. Review and update the risk management plan

IRB Class : **Retail Exposures**

IRB Subclass : ~~Residential Mortgages to Individuals / Residential Mortgages to Property-holding Shell Companies / Qualifying Revolving Retail Exposures (Transactor) /~~

Qualifying Revolving Retail Exposures (Revolver) / Small-Business Retail Exposures / Other Retail Exposures to Individuals (delete where inapplicable)

Portfolio Type : (please specify where the reporting AI has more than one internal rating system for an IRB class / subclass)

Selected Breakdown of Exposures		(in HK\$'000)			
		EAD of exposures where the estimated LGD is lower than the LGD floor as set out in section 178 of the BCR (A) = (A1) + (A2) + (A3)	Of which, the estimated LGD is lower than the LGD floor by		
			less than 5% (A1)	5-10% (A2)	more than 10% (A3)
1	Unsecured exposures				
2	Partially secured exposures				
3	Fully secured exposures				
4	Residential mortgages				

Division D: Off-Balance Sheet Exposures (Other Than Default Risk Exposures in respect of Derivative Contracts and SFTs) under IRB Approach

IRB_OBSND

Name of the AI: XYZ Bank

(in HK\$'000)

IRB Class	1. Direct credit substitutes				2. Transaction-related contingencies				3. Trade-related contingencies				4. Asset sales with recourse			
	Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount	
			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)	(3a)	(3b)	(3c)	(3d)	(4a)	(4b)	(4c)	(4d)
(A1) Foundation IRB Approach:																
(i) Corporate exposures		100				50				20				100		
(ii) Sovereign exposures		100				50				20				100		
(iii) Bank exposures		100				50				20				100		
(A2) Advanced IRB Approach:																
(i) Corporate exposures		100												100		
(ii) Sovereign exposures		100												100		
(B) Retail exposures		100												100		
Total:																

(in HK\$'000)																			
IRB Class	5. Forward asset purchases				6. Partly paid-up securities				7. Forward forward deposits placed				8. Note issuance and revolving underwriting facilities						
	Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount				
			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			
	(5a)	(%)	(5b)	(5c)	(5d)	(6a)	(%)	(6b)	(6c)	(6d)	(7a)	(%)	(7b)	(7c)	(7d)	(8a)	(%)	(8b)	(8c)
(A1) Foundation IRB Approach:																			
(i) Corporate exposures		100				100					100					50			
(ii) Sovereign exposures		100				100					100					50			
(iii) Bank exposures		100				100					100					50			
(A2) Advanced IRB Approach:																			
(i) Corporate exposures		100				100					100								
(ii) Sovereign exposures		100				100					100								
(B) Retail exposures		100				100					100								
Total:																			

Division D:

Off-Balance Sheet Exposures (Other Than Default Risk Exposures in respect of Derivative Contracts and SFTs) under IRB Approach

IRB Class	9. Commitments eligible for a CCF of 0%				10. Revolving commitments that are unconditionally cancellable without prior notice				11. Non-revolving commitments that are unconditionally cancellable without prior notice				12. Revolving commitments that are not unconditionally cancellable without prior notice			
	Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount	
			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts			before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts
	(9a)	(9b)	(9c)	(9d)	(10a)	(10b)	(10c)	(10d)	(11a)	(11b)	(11c)	(11d)	(12a)	(12b)	(12c)	(12d)
(A1) Foundation IRB Approach:																
(i) Corporate exposures		0				10				10				40		
(ii) Sovereign exposures						10				10				40		
(iii) Bank exposures						10				10				40		
(A2) Advanced IRB Approach:																
(i) Corporate exposures		0								10						
(ii) Sovereign exposures										10						
(B) Retail exposures					200 (G)	10	20	20		10						
Total:					200		20	20								

(in HK\$'000)

13. Non-revolving commitments that are not unconditionally cancellable without prior notice				14. Sale and repurchase agreements (excluding those that are repo-style transactions)				15. Others				Total credit equivalent amount	
Principal amount	CCF	Credit equivalent amount		Principal amount	CCF	Credit equivalent amount		Principal amount	CCF ^(a)	Credit equivalent amount		Before recognized guarantees / credit derivative contracts	After recognized guarantees / credit derivative contracts
	(%)	before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts		(%)	before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts		(%)	before recognized guarantees / credit derivative contracts	after recognized guarantees / credit derivative contracts	(to Division B)	(to Division B)
(13a)	(13b)	(13c)	(13d)	(14a)	(14b)	(14c)	(14d)	(15a)	(15b)	(15c)	(15d)	$C_T = (1c) + (2c) + \dots + (14c) + (15c)$	$D_T = (1d) + (2d) + \dots + (14d) + (15d)$
	40				100								
	40				100								
	40				100								
	40				100								
	40				100								
	40				100							20	20
												20	20

(a) CCF of 100% or any percentage specified by the MA.

Division F: EL-EP Calculation under IRB Approach

IRB_ELEP
(in HK\$'000)

Item	IRB Class	Expected Loss Amount (EL Amount)			Eligible Provisions (EP)			EL-EP Calculation	
		Non-defaulted exposures	Defaulted exposures	Total	Non-defaulted exposures	Defaulted exposures	Total	Excess of total EL amount over total EP	Excess of total EP over total EL amount
		(a)	(b)	(c) = (a)+(b)	(d)	(e)	(f) = (d)+(e)	(g)	(h)
1.	Corporate exposures , of which	2,430	35,000	37,430	2,032	40,000	42,032		
	(a) Specialized lending (project finance)								
	(b) Specialized lending (object finance)								
	(c) Specialized lending (commodities finance)								
	(d) Specialized lending (income-producing real estate)								
	(e) Specialized lending (high-volatility commercial real estate)								
	(f) Small-and-medium sized corporates	1,350 (B)		1,350	1,032 (B)		1,032		
	(g) Large corporates								
	(h) Financial institutions treated as corporates								
	(i) Other corporates	1,080 (A)	35,000 (F)	36,080	1,000 (A)	40,000 (F)	41,000		
2.	Sovereign exposures , of which	347		347	0				
	(a) Sovereigns	347 (E)		347	0 (E)				
	(b) Sovereign foreign public sector entities								
	(c) Multilateral development banks								
3.	Bank exposures , of which	45		45	688		688		
	(a) Banks (excluding covered bonds)	45 (C)		45	688 (C)		688		
	(b) Qualifying non-bank financial institutions								
	(c) Public sector entities (excluding sovereign foreign public sector entities)								
	(d) Covered bonds								
	(e) Unspecified multilateral bodies								
4.	Retail exposures , of which	4		4	0				
	(a) Residential mortgages								
	(b) Qualifying revolving retail exposures (transactor)								
	(c) Qualifying revolving retail exposures (revolver)	4 (G)		4	0 (G)				
	(d) Small business retail exposures								
	(e) Other retail exposures to individuals								
5.	Total	2,826	35,000	37,826	2,720	40,000	42,720		
6.	Deduction from CET1 capital [Item 6 = Item 5(c) - Item 5(f)]							0	
7.	Surplus provisions [Item 7 = Item 5(f) - Item 5(c)]								4,894
8.	0.6% of total risk-weighted amount for credit risk (IRB Approach) [Item 8 = Item 7 of Form_IRB_TOTCRWA x 0.6%]								2,023
9.	Surplus provisions added to Tier 2 capital [Min(Item 7, Item 8)]								

Completion Instructions

Return of Capital Adequacy Ratio Part IIIId – Risk-weighted Amount for Credit Risk (Securitization Exposures) Form MA(BS)3(IIIId)

Introduction

1. Form MA(BS)3(IIIId) of Part III should be completed by each authorized institution (“AI”) incorporated in Hong Kong that has *securitization exposures*¹ booked in its *banking book*.
2. This Form contains the following Divisions:
 - (a) Division A is a summary table showing the total *risk-weighted amounts* (“RWAs”) of the securitization exposures of a reporting AI and the capital deduction required in respect of its *securitization transactions* or securitization exposures;
 - (b) Division B captures securitization exposures (other than *re-securitization exposures*) that are subject to the *securitization internal ratings-based approach (SEC-IRBA)*;
 - (c) Division C1 captures securitization exposures (other than re-securitization exposures) that are subject to the *securitization external ratings-based approach (SEC-ERBA)* where the risk-weights are determined based on—
 - (i) *long-term ECAI issue specific ratings* or *long-term inferred ratings*;
or
 - (ii) (if the reporting AI has an *IAA approval* to use the *internal assessment approach (IAA)*) *internal credit ratings* mapped to equivalent long-term ECAI issue specific ratings;
 - (d) Division C2 captures securitization exposures (other than re-securitization exposures) that are subject to the SEC-ERBA where the risk-weights are determined based on—
 - (i) *short-term ECAI issue specific ratings* or *short-term inferred ratings*;
or

¹ For example, asset-backed securities, mortgage-backed securities, credit enhancements, liquidity facilities, interest rate or currency swaps, credit derivative contracts, tranching credit protection, and reserve accounts, such as cash collateral accounts, recorded as an asset by the originating institution.

- (ii) (if the reporting AI has an IAA approval to use the IAA) internal credit ratings mapped to equivalent short-term ECAI issue specific ratings;
 - (e) Division D1 captures securitization exposures (other than re-securitization exposures) that are subject to the ***securitization standardized approach (SEC-SA)***;
 - (f) Division D2 captures re-securitization exposures that are subject to the SEC-SA; and
 - (g) Division E captures securitization exposures (including re-securitization exposures) that are subject to the ***securitization fall-back approach (SEC-FBA)***.
3. In each of Divisions B, D1, D2 and E, columns (1) to (3) are for reporting of on-balance sheet securitization exposures while columns (4) to (7) are for reporting of off-balance sheet securitization exposures. In Divisions C1 and C2, on-balance sheet securitization exposures and off-balance sheet securitization exposures must be reported in columns (1) to (3a) and columns (4) to (7a) respectively. Columns (3a) and (7a) are subsets of columns (3) and (7).
 4. This Form and its completion instructions should be read in conjunction with the Banking (Capital) Rules (“BCR”) and the relevant supervisory policy/guidance related to the capital adequacy framework (in particular, the SPM module CR-G-12 “Credit Risk Transfer Activities” (to the extent related to credit assessments and significant credit risk transfer) and the Q&As on the securitization framework).

Section A: Definitions and General Instructions

In this Form—

5. “Exposure Amount before CRM” means the ***exposure amount*** of a securitization exposure before taking into account any ***Part 7 credit risk mitigation*** (“Part 7 CRM”) obtained for the exposure, but net of any amounts that are permitted to be deducted from the exposure amount (e.g. ***specific provisions***, write-offs and non-refundable purchase price discounts) under section 236(3) of the BCR.
6. “Principal Amount” of an off-balance sheet exposure has the meaning given by paragraph (b) of the definition of ***principal amount*** in section 227(1) of the BCR. However, if the off-balance sheet exposure concerned is a ***default risk exposure*** arising from a ***derivative contract***, “Principal Amount” means the nominal ***notional amount*** of the contract, which should not be confused with any effective notional amount or adjusted notional calculated for the contract under Part 6A of the BCR.
7. “Senior exposures” means securitization exposures in ***senior tranches*** (See **Annex IIIId-A** for more information on the determination of seniority).
8. “Non-senior exposures” means securitization exposures in ***non-senior tranches***.

9. “Senior long-term securitization exposures” means senior exposures that have a long-term ECAI issue specific rating or a long-term inferred rating.
10. “Non-senior long-term securitization exposures” means non-senior exposures that have a long-term ECAI issue specific rating or a long-term inferred rating.
11. “Senior short-term securitization exposures” means senior exposures that have a short-term ECAI issue specific rating or a short-term inferred rating.
12. “Non-senior short-term securitization exposures” means non-senior exposures that have a short-term ECAI issue specific rating or a short-term inferred rating.
13. “Risk-weight” means—
 - (a) in the case of a securitization exposure (other than **an NPL securitization exposure** or a re-securitization exposure)—the risk-weight applicable to the exposure determined by using the SEC-IRBA, SEC-ERBA, SEC-SA or SEC-FBA—
 - (i) after taking into account the risk-weight floor of 15% (see section 240(1) of the BCR) and, if applicable, the risk-weight floor set out in section 240(3) or (4) and the risk-weight cap for senior tranches (see section 241 of the BCR); and
 - (ii) without taking into account any Part 7 CRM;
 - (b) in the case of an NPL securitization exposure—the risk-weight applicable to the exposure determined in accordance with Division 11 of Part 7 of the BCR without taking into account any Part 7 CRM;
 - (c) in the case of a re-securitization exposure—the risk-weight applicable to the exposure determined by using the SEC-SA or SEC-FBA—
 - (i) after taking into account the risk-weight floor of 100% (see section 240(2) of the BCR) and if applicable, the risk-weight floor set out in section 240(4) of the BCR; and
 - (ii) without taking into account any Part 7 CRM;
 - (d) in the case of Part 7 CRM obtained for a securitization exposure—the risk-weight applicable to—
 - (i) the **recognized collateral** concerned determined in accordance with Part 4, 6 or 7 and in compliance with Division 5 of Part 7 of the BCR; or
 - (ii) the **credit protection provider** of the **recognized guarantee** or **recognized credit derivative contract** concerned, as the case may be, determined in accordance with Part 4 or 6 and in compliance with Division 5 of Part 7 of the BCR;
 - (e) in the case of assets held by a **special purpose entity (SPE)** in an **eligible synthetic securitization transaction** described in section 230(2A) of the

BCR—the weighted-average risk-weight of the assets determined in accordance with Part 4 of the BCR.

A.1 Reporting of underlying exposures of securitization transaction where reporting AI is *originating institution*

14. The AI must report the *underlying exposures* of a *non-eligible securitization transaction* as follows—
- (a) report the underlying exposures in Form MA(BS)3(IIIa), Form MA(BS)3(IIIb) or Form MA(BS)3(IIIc) (if the underlying exposures are non-securitization exposures) or this Form (if the underlying exposures are securitization exposures), as if the underlying exposures had not been securitized; and
 - (b) if the transaction is a *synthetic securitization transaction*, the underlying exposures must be reported without taking into account the effect of any credit risk mitigation (“CRM”) used for transferring the credit risk of the underlying exposures to other parties to the transaction.
15. If the AI has served a notice to the HKMA under section 230(3) of the BCR for applying the treatment set out in section 230(1), (2) or (2A) of the BCR to the underlying exposures of an *eligible securitization transaction*—
- (a) in the case where the transaction is a *traditional securitization transaction*, the AI is not required to report the underlying exposures in any of Form MA(BS)3(IIIa), Form MA(BS)3(IIIb), Form MA(BS)3(IIIc) and this Form;
 - (b) in the case where the transaction is a synthetic securitization transaction—
 - (i) subject to subparagraph (ii), the AI must report the underlying exposures and the effect of the CRM used for transferring the credit risk of the underlying exposures in Form MA(BS)3(IIIa), Form MA(BS)3(IIIb) or Form MA(BS)3(IIIc) (if the underlying exposures are non-securitization exposures) or this Form (if the underlying exposures are securitization exposures);
 - (ii) if *tranching credit protection* is obtained by the AI for the underlying exposures, the AI must report the underlying exposures and the effect of the CRM used for transferring the credit risk of the underlying exposures in this Form in accordance with paragraphs 16, 17, 35 and 36 below.

A.2 Decomposition of exposures covered by tranching credit protection

16. Subject to paragraph 17, if a securitization exposure or non-securitization exposure is covered by tranching credit protection (“protected exposure”), no matter whether the protection is provided or obtained by the reporting AI, the

protected exposure must be decomposed² into a protected sub-tranche and an unprotected sub-tranche. The sub-tranches resulted from decomposing a non-securitization exposure must be treated as securitization exposures for the purposes of calculating their RWAs.

17. When decomposing an exposure for which the AI has obtained tranching credit protection, the decomposition must take into account—
- (a) if there is a **maturity mismatch**—the adjustment to the value of the credit protection required under section 246 of the BCR; and
 - (b) if the tranching credit protection is in the form of recognized collateral and the reporting AI uses the **comprehensive approach** or Formula 18 or 19 in Part 6 of the BCR to take into account the credit risk mitigation effect (“CRM effect”) of the collateral—the adjustment to the value of the credit protection resulted from any applicable **standard supervisory haircuts** applied to the collateral.

A.3 Reporting of derivative contracts entered into under securitization transactions

18. If a reporting AI’s securitization exposure is a default risk exposure arising from a derivative contract and the risk-weight of the exposure is determined by using the SEC-IRBA, SEC-ERBA, SEC-SA or SEC-FBA, the default risk exposure must be reported in this Form.

A.4 Reporting of eligible ABCP exposures risk-weighted by using the IAA

19. A reporting AI with an IAA approval to risk-weight **eligible ABCP exposures** by using the IAA must include the eligible ABCP exposures in the amounts reported in columns (1) to (3) and (4) to (7) of Divisions C1 and C2, and the RWAs of the eligible ABCP exposures must also be reported separately in columns (3a) and (7a) of those Divisions.

A.5 Treatment of default risk and dilution risk in respect of purchased receivables under SEC-IRBA

20. For cases where the default and dilution risks are not treated in an aggregated manner, a reporting AI must determine in a prudent manner how the K_{IRB} of the entire pool of the underlying exposures concerned should be calculated in order to adequately reflect the extent to which the AI is exposed to the two risks (see section 252(3) of the BCR). Reporting AIs may refer to paragraphs 99.4 to 99.19 of Chapter CRE99 of the Basel Framework³ for guidance.

² The sub-tranches resulted from the decomposition are not considered as re-securitization exposures for capital adequacy purposes.

³ https://www.bis.org/basel_framework/chapter/CRE/99.htm?inforce=20230101&published=20200327

A.6 Tranche maturity of tranche in securitization transaction

21. To avoid doubt, if a reporting AI uses Formula 24 under section 248 of the BCR to calculate the tranche maturity (M_T) of a *tranche* for the purpose of reporting in this Form the RWA of a securitization exposure in the tranche as of a particular position date, the cash flows (CF_t) used in the Formula should be those that are contractually payable under the tranche from the position date to the final maturity of the tranche.

A.7 Reporting of NPL securitization exposures

22. NPL securitization exposures should be reported in this Form in the same manner as securitization exposures that are not NPL securitization exposures.

Section B: Reporting Arrangements for Division A

23. Column (1) is for reporting the total RWAs of all of a reporting AI's securitization exposures to securitization transactions and the capital deductions required in respect of securitization transactions. If the reporting AI is the originating institution of any of these securitization transactions, it must report the RWAs of its securitization exposures to, and the capital deductions in respect of, the transactions originated by it in Column (2) as a subset of the amounts reported in Column (1).
24. Items *A5(a)* and *(b)* are to be filled in by reporting AIs that are originating institutions. If a reporting AI, which is the originating institution of a securitization transaction (other than a re-securitization transaction), has, in accordance with section 242 of the BCR, taken the maximum capital charge calculated for the transaction under that section as the total capital charge of all the AI's securitization exposures to the transaction, the AI—
- (a) must report the corresponding RWA (i.e. the maximum capital charge times 12.5) in either item *A5(a)* or *(b)* based on the original approach used by the AI for risk-weighting the securitization exposures; and
 - (b) must not adjust the RWAs of the securitization exposures reported in any of Divisions B to E to reconcile with the amount reported in item *A5(a)* or *(b)* (in other words, the amounts reported in any of these Divisions must be based on risk-weights without considering the maximum capital charge).

Section C: Reporting Arrangements for Divisions B to E

C.1 Securitization Exposures not covered by Part 7 CRM

25. Subject to paragraph 27, if a reporting AI has not obtained any Part 7 CRM for its securitization exposure—
- (a) the exposure amount before CRM of the exposure must be reported in column (1) or (5), as the case requires;

- (b) if the exposure is an off-balance sheet exposure, its principal amount must be reported in column (4);
 - (c) the exposure amount after CRM of the exposure, which is the same amount as the exposure amount before CRM, must be reported in column (2) or (6), as the case requires;
 - (d) the RWA of the exposure, which is the product of the amount reported in column (2) or (6) and the risk-weight applicable to the exposure, must be reported in column (3) or (7) (and, if applicable, column (3a) or (7a) of Division C1 or C2), as the case requires; and
 - (e) all the amounts above must be reported in the same row that corresponds to the risk-weight applicable to the exposure.
26. The reporting arrangements in paragraph 25 also apply to cases where—
- (a) the securitization exposure is a default risk exposure calculated by using the ***SA-CCR approach*** or the ***IMM(CCR) approach***; and
 - (b) the collaterals received by the reporting AI for the exposure have already been included in—
 - (i) the calculation of haircut value of net collateral held under section 226BJ of the BCR when calculating the default risk exposure under the SA-CCR approach; or
 - (ii) the estimation mentioned in section 226H(2)(a) of the BCR when calculating the default risk exposure under the IMM(CCR) approach.
27. In the case of a securitization exposure arising from credit protection provided by the reporting AI—
- (a) if the credit protection is a full or proportional credit protection provided to another securitization exposure (“protected exposure”)—
 - (i) for the purpose of paragraphs 25(a) and 25(b), the AI must determine the amount to be reported in column (1) or the amounts to be reported in columns (4) and (5), as the case requires, as if it directly held that portion of the protected exposure on which it has provided the credit protection; and
 - (ii) for the purpose of paragraph 25(e), the risk-weight applicable to the AI’s exposure is the risk-weight applicable to the protected exposure; or
 - (b) if the credit protection is a tranching credit protection provided to another securitization exposure or a non-securitization exposure (“protected exposure”)—
 - (i) for the purpose of paragraphs 25(a) and 25(b), the AI must report the amount of the protected sub-tranche of the protected exposure in column

(1) or in columns (4) and (5) (see paragraph 16 above on decomposition of the protected exposure); and

- (ii) for the purpose of paragraph 25(e), the risk-weight applicable to the AI's exposure is the risk-weight applicable to the protected sub-tranche determined by using the SEC-IRBA, SEC-ERBA, SEC-SA or SEC-FBA, as the case requires, and in accordance with sections 240, 241 and 249 of the BCR.

C.2 Securitization Exposures covered by Full or Proportional Credit Protection - Reporting Arrangements for Division B

28. If Part 7 CRM is obtained by a reporting AI for its securitization exposure and the exposure is risk-weighted by using the SEC-IRBA, the AI must report the exposure amount before CRM of the exposure in column (1) or (5) of the row corresponding to the risk-weight applicable to the exposure. If the exposure is an off-balance sheet exposure, the principal amount of the exposure must be reported in column (4) of the same row.
29. If the Part 7 CRM is a recognized guarantee or a recognized credit derivative contract, the AI must, after adjusting the value of the credit protection for any maturity mismatch in accordance with section 246 of the BCR—
- (a) report in the row corresponding to the risk-weight applicable to the securitization exposure and—
 - (i) in column (2) or (6)—the uncovered portion of the exposure determined in accordance with the *substitution framework* under Part 6 of the BCR; and
 - (ii) in column (3) or (7)—the RWA of the uncovered portion; and
 - (b) report in the row corresponding to the risk-weight applicable to the credit protection provider concerned and—
 - (i) in column (2) or (6)—the covered portion of the exposure determined in accordance with the substitution framework; and
 - (ii) in column (3) or (7)—the RWA of the covered portion.
30. If the Part 7 CRM is recognized collateral, the AI must report—
- (a) the net credit exposure (after adjusting the value of the credit protection for any maturity mismatch in accordance with section 246 of the BCR) determined by using Formula 19 in Part 6 of the BCR in column (2) or (6); and
 - (b) the RWA of the net credit exposure in column (3) or (7).

All the amounts above must be reported in the same row corresponding to the risk-weight applicable to the securitization exposure.

C.3 Securitization Exposures covered by Full or Proportional Credit Protection - Reporting Arrangements for Divisions C1 to E

31. If Part 7 CRM is obtained by a reporting AI for its securitization exposure and the exposure is risk-weighted by using the SEC-ERBA, SEC-SA or SEC-FBA, the AI must report the exposure amount before CRM of the exposure in column (1) or (5) of the row corresponding to the risk-weight applicable to the exposure. If the exposure is an off-balance sheet exposure, the principal amount of the exposure must be reported in column (4) of the same row.
32. Reporting of CRM effects of recognized collateral subject to the *simple approach*, recognized guarantees and recognized credit derivative contracts
- (a) If the securitization exposure is an on-balance sheet exposure, a default risk exposure or an exposure arising from the provision of unfunded credit protection, the AI must, after adjusting the value of the credit protection pursuant to Parts 4 and 7 of the BCR (e.g. section 100 for *currency mismatch* and section 246 for maturity mismatch)—
- (i) report the *credit protection uncovered portion* of the exposure in column (2) or (6) of the row corresponding to the risk-weight applicable to the securitization exposure;
- (ii) report the *credit protection covered portion* of the exposure in column (2) or (6) of the row corresponding to the risk-weight applicable to the credit protection provider or collateral concerned; and
- (iii) report—
- (A) the RWA of the credit protection uncovered portion in column (3) or (7) (and, if applicable, column (3a) or (7a) of Division C1 or C2) of the row corresponding to the risk-weight applicable to the securitization exposure; and
- (B) the RWA of the credit protection covered portion in column (3) or (7) of the row corresponding to the risk-weight applicable to the credit protection provider or collateral concerned.
- (b) If the securitization exposure is an off-balance sheet exposure other than one that falls within paragraph (a), the same reporting arrangements in paragraph (a) apply except that—
- (i) the references to “credit protection uncovered portion” in paragraphs (a)(i) and (a)(iii) must be construed to mean the product of the credit protection uncovered portion of the exposure and the factor applicable to the exposure specified in section 235(2)(c) of the BCR; and
- (ii) the references to “credit protection covered portion” in paragraphs (a)(ii) and (a)(iii) must be construed to mean the product of the credit protection covered portion of the exposure and the factor applicable to the exposure specified in section 235(2)(c) of the BCR.

33. Reporting of CRM effect of recognized collateral subject to the comprehensive approach

- (a) The net credit exposure (after adjusting the value of the credit protection for any maturity mismatch in accordance with section 246 of the BCR) calculated under section 87 or 88 of the BCR, as the case requires, must be reported in column (2) or (6).
- (b) The RWA of the net credit exposure must be reported in column (3) or (7) (and, if applicable, column (3a) or (7a) of Division C1 or C2).

All the amounts above must be reported in the same row corresponding to the risk-weight applicable to the securitization exposure.

C.4 Securitization Exposure or Non-securitization Exposure covered by Tranched Credit Protection

34. Subject to paragraphs 35 and 36, if tranched credit protection is obtained by a reporting AI for a securitization exposure or non-securitization exposure—

- (a) the amounts of the unprotected sub-tranche and protected sub-tranche must be reported in column (1) or in columns (4) and (5), and in the rows corresponding to the risk-weights applicable to the sub-tranches (i.e. the risk-weights determined by using the SEC-IRBA, SEC-ERBA, SEC-SA or SEC-FBA, as the case requires, and in accordance with sections 240, 241 and 249 of the BCR);
- (b) the amount of the unprotected sub-tranche must be reported in column (2) or (6) of the row corresponding to the risk-weight applicable to the unprotected sub-tranche;
- (c) the RWA of the unprotected sub-tranche must be reported in column (3) or (7) (and, if applicable, column (3a) or (7a) of Division C1 or C2) of the row corresponding to the risk-weight applicable to the unprotected sub-tranche;
- (d) in cases where the tranched credit protection is in the form of—
 - (i) recognized collateral subject to the simple approach;
 - (ii) recognized guarantee; or
 - (iii) recognized credit derivative contract,

the amount of the protected sub-tranche must be reported in column (2) or (6) and the RWA of the protected sub-tranche must be reported in column (3) or (7). Both of the two amounts must be reported in the row corresponding to the risk-weight applicable to the collateral or credit protection provider concerned.

35. If—

- (a) tranching credit protection is obtained by a reporting AI for securitization exposures or non-securitization exposures (“protected exposures”) through a **credit-linked note** issued by the AI; and
- (b) the credit derivative contract embedded in the credit-linked note is a recognized credit derivative contract,

subject to paragraph 17 above, the AI may only treat that amount of the protected exposures which is equivalent to the cash funding received by the AI from the credit-linked note as being fully covered and must treat that portion of the protected exposures covered by the cash funding as a protected sub-tranche collateralized by cash deposit⁴. The reporting arrangements are same as those in paragraph 34.

36. If—

- (a) a reporting AI is the originating institution of an eligible synthetic securitization transaction;
- (b) tranching credit protection in the form of recognized guarantee or recognized credit derivative contract is obtained by the AI for the underlying exposures of the eligible synthetic securitization transaction;
- (c) the guarantor of the recognized guarantee or the **protection seller** of the recognized credit derivative contract, as the case may be, is the SPE in the eligible synthetic securitization transaction;
- (d) all the conditions in section 2(a) of Schedule 10 to the BCR are satisfied in respect of the SPE and its assets; and
- (e) the AI has served a notice to the HKMA under section 230(3) of the BCR for applying the treatment set out in section 230(2A) of the BCR to the underlying exposures of the eligible synthetic securitization transaction,

the AI must report the underlying exposures and the CRM effect of the recognized guarantee or recognized credit derivative contract as follows—

- (f) the amounts of the unprotected sub-tranche and protected sub-tranche of the underlying exposures must be reported in column (1) (and/or columns (4) and (5) if applicable) and in the rows corresponding to the risk-weights applicable to the sub-tranches (i.e. the risk-weights determined by using the SEC-IRBA, SEC-ERBA, SEC-SA or SEC-FBA, as the case requires, and in accordance with sections 240, 241 and 249 of the BCR);

⁴ See section 101(8) of the BCR and **paragraph 132** of the completion instructions for Form MA(BS)3 Part IIIc.

- (g) the amount of the unprotected sub-tranche must be reported in column (2) (and/or column (6) if applicable) of the row corresponding to the risk-weight applicable to the unprotected sub-tranche;
- (h) the amount of the protected sub-tranche must be reported in column (2) (and/or column (6) if applicable) of the row corresponding to the weighted-average risk-weight of the assets held by the SPE (in other words, the weighted-average risk-weight of the SPE's assets is treated as the risk-weight applicable to the SPE (see section 230(2B) of the BCR));
- (i) the RWA of the unprotected sub-tranche must be reported in column (3) (and/or column (7) if applicable) of the row corresponding to the risk-weight applicable to the unprotected sub-tranche; and
- (j) the RWA of the protected sub-tranche must be reported in column (3) (and/or column (7) if applicable) of the row corresponding to the weighted-average risk-weight of the assets held by the SPE.

Section D: Reporting of overlapping securitization exposures

37. If there is an overlapping portion in a reporting AI's securitization exposures to a securitization transaction and the overlapping is between securitization exposures booked in the banking book and the trading book of the AI, the overlapping portion that is attributed to the exposures booked in the banking book must be reported in this Form. However, if the overlapping portion is attributed to the exposures booked in the trading book, the overlapping portion must be reported in Form **MA(BS)3A(I)** (see **Annex III d-B** for illustration).

Hong Kong Monetary Authority
March 2025

Guidance on determining the seniority of tranches

1. If several senior tranches in the same securitization transaction have different maturities and the tranches share pro rata loss allocation, the different maturities shall have no effect on the seniority of these tranches since they benefit from the same level of credit enhancement.
2. In a typical synthetic securitization transaction, a tranche that does not have an ECAI issue specific rating (“relevant tranche”) would be treated as a senior tranche, provided that an ***inferred rating*** can be attributed to the relevant tranche by reference to a ***rated*** lower tranche that is a senior tranche.
3. In a traditional securitization transaction where all tranches above the ***first loss tranche*** are rated, the most highly rated position would be treated as a senior tranche. If there are several tranches that share the same rating, only the tranche that is eligible for the highest priority of payment or repayment will be treated as a senior tranche. If there are several senior tranches having different ratings and the different ratings only result from a difference in maturity, all of these tranches should be treated as a senior tranche.
4. A ***liquidity facility*** supporting an ***ABCP programme*** may be treated as a senior tranche if—
 - (a) the facility is sized to cover all of the outstanding commercial papers and other senior debts supported by the pool of underlying exposures concerned; and
 - (b) no cash flows from the pool of underlying exposures can be transferred to creditors (other than the person providing the facility) until the drawn portion of the liquidity facility is repaid in full.
5. If a liquidity facility supporting an ABCP programme does not meet the conditions in paragraphs 4(a) and 4(b), or if for other reasons the facility constitutes a mezzanine position in economic substance rather than a senior position in the pool of underlying exposures concerned, the facility should be treated as a non-senior tranche.

Treatment of Overlapping Securitization Exposures

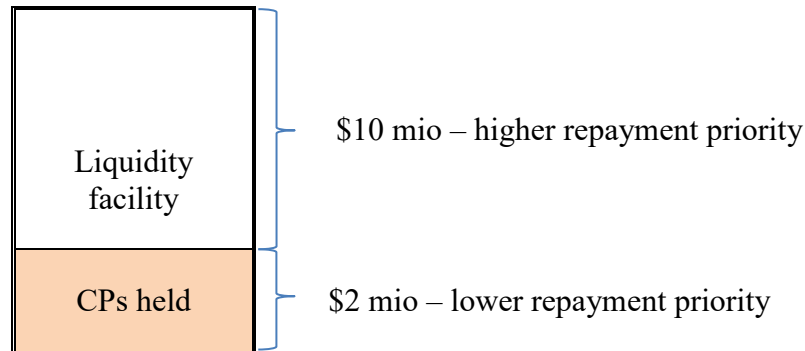
1. A reporting AI may determine the amount of the overlapping portion using any of the two different approaches described below.
2. The first approach is to split its securitization exposures to a securitization transaction into—
 - (a) portions that overlap with another securitization exposure held by it to the same transaction; and
 - (b) other portions that do not overlap with each other.
3. The second approach is to expand its securitization exposures to a securitization transaction by assuming for capital adequacy purposes that the institution's obligations with respect to one of the securitization exposures are larger than those established contractually. This could be done, say, by expanding the trigger events to exercise a facility and/or the extent of the institution's obligations under the facility. For example, if a liquidity facility provided by an authorized institution to an ABCP programme is not contractually required to cover defaulted assets or will not fund the programme under certain circumstances, the institution may regard the facility overlaps with the commercial papers ("CPs") issued by the ABCP conduit held by the institution as if—
 - (a) its obligations under the facility covered the defaulted assets; or
 - (b) the circumstances concerned were trigger events which, if occur, will allow the facility to be drawn,

such that the facility would preclude all losses on the CPs. In this case, the institution is not required to hold regulatory capital for the CPs. However, the regulatory capital it must hold against the facility must be calculated based on the obligations as expanded in the manner described in paragraph (a) and (b) instead of those established contractually.

Illustrative Examples of the First Approach

4. An originating institution of an ABCP programme provides a liquidity facility of \$10 million to the programme. The institution also holds \$2 million of the CPs (rating: A-2) issued under the programme. The overlapping portion of these two exposures is \$2 million and the liquidity facility has a higher seniority than the CPs. Other details are as follows:
 - (a) the risk-weight of the liquidity facility (RW_{facility}) is 15%;
 - (b) the CCF applicable to the liquidity facility is 100%;

- (c) the risk-weight of the CPs is 50% (RW_{credit}); and
- (d) according to section 287A of the BCR as amended by Part 5 of the Banking (Capital) (Amendment) Rules 2023, the market risk capital charge factor applicable to the CPs under the SSTM approach is 4% (K_{market}), which is calculated by dividing the risk-weight of 50% (determined under Part 7 of the BCR) by 12.5.



A. Overlapping within Banking Book (i.e. liquidity facility overlaps with CPs that are held in the banking book)

5. Since the liquidity facility has a higher seniority, fulfilling the AI's obligations with respect to the CPs by absorbing credit losses on the underlying exposures first will preclude a loss from the facility, the overlapping portion is attributed to the CPs.

(a) The RWA of the overlapping portion:

$$= 2 \text{ million} \times RW_{\text{credit}}$$

$$= 2 \text{ million} \times 50\%$$

$$= 1 \text{ million --- (1)}$$

(b) The RWA of the portion of the liquidity facility that is not the overlapping portion:

$$= (10 \text{ million} - 2 \text{ million}) \times CCF \times RW_{\text{liquidity}}$$

$$= 8 \text{ million} \times 100\% \times 15\%$$

$$= 1.2 \text{ million --- (2)}$$

6. The total RWA of the institution's securitization exposures to the programme:

$$= (1) + (2)$$

$$= 1 \text{ million} + 1.2 \text{ million}$$

$$= 2.2 \text{ million}$$

B. Overlapping between Banking Book and Trading Book (i.e. liquidity facility overlaps with CPs that are held in the trading book)

7. If the overlapping portion is attributed to the liquidity facility, RWA of the overlapping portion

$$= 2 \text{ million} \times \text{CCF} \times \text{RW}_{\text{liquidity}}$$

$$= 2 \text{ million} \times 100\% \times 15\%$$

$$= 0.3 \text{ million}$$

8. If the overlapping portion is attributed to the CPs, the RWA of the overlapping portion is calculated by multiplying the product of the capital charge calculated under section 287A and 1.3 (the scaling factor set out in section 284 of the BCR as amended by Part 5 of the Banking (Capital)(Amendment) Rules 2023) by 12.5.

$$= 2 \text{ million} \times K_{\text{market}} \times 1.3 \times 12.5$$

$$= 2 \text{ million} \times 50\% \times 1.3$$

$$= 1.3 \text{ million}$$

9. The overlapping portion is attributed to the CPs as this results in a higher RWA. Hence, the RWA of 1.3 million must be reported in Form MA(BS)3A(I).

10. The RWA of the portion of the liquidity facility that is not the overlapping portion

$$= (10 \text{ million} - 2 \text{ million}) \times \text{CCF} \times \text{RW}_{\text{liquidity}}$$

$$= 8 \text{ million} \times 100\% \times 15\%$$

$$= 1.2 \text{ million} \quad (\text{To be reported in this Form})$$

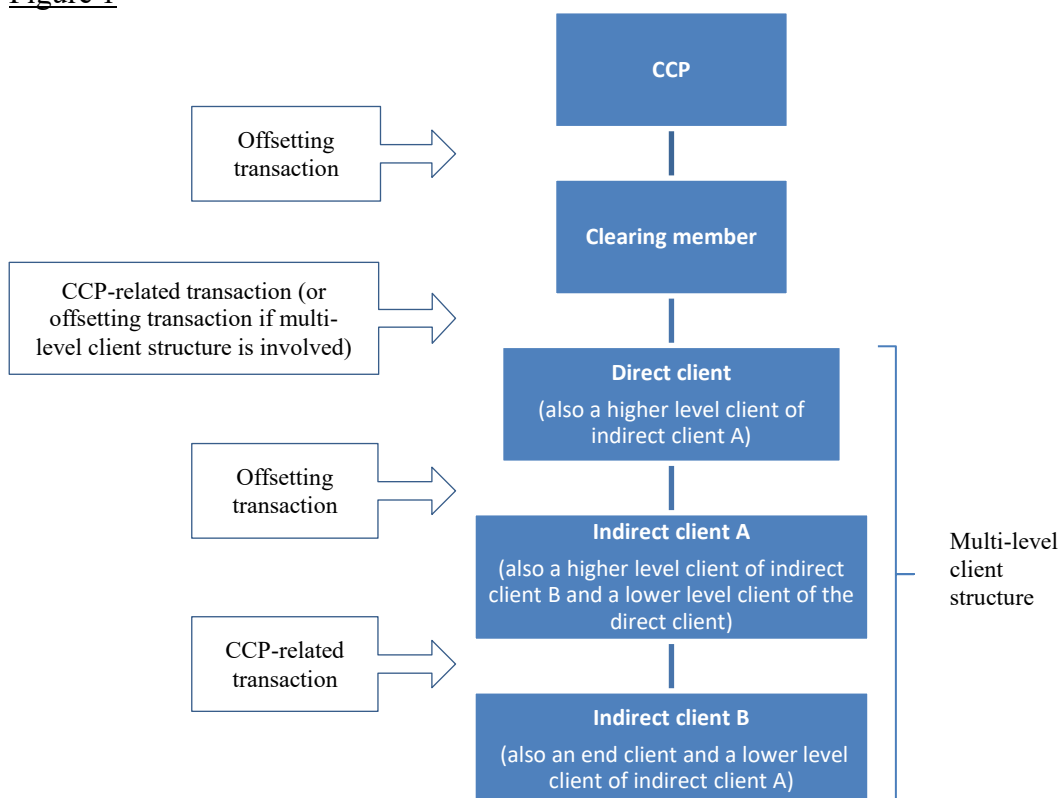
Completion Instructions

Return of Capital Adequacy Ratio Part IIIe – Risk-weighted Amount for Exposures to Central Counterparties Form MA(BS)3(IIIe)

Introduction

1. Form MA(BS)3(IIIe) of Part III should be completed by each authorized institution (AI) incorporated in Hong Kong regardless of the approach adopted by the AI for calculating its *credit risk* for *non-securitization exposures*.
2. This Form captures credit exposures to *central counterparties* (CCPs) calculated under Division 4 of Part 6A of the Banking (Capital) Rules (BCR). This Form and its completion instructions should be read in conjunction with the BCR and the relevant supervisory policy/guidance related to the capital adequacy framework. Figure 1¹ should be referred to when reading instructions related to *multi-level client structure*.

Figure 1



¹ The structure shown in Figure 1 is only a hypothetical case for ease of cross-referencing and is not meant to represent any typical or existing indirect clearing structure.

3. This Form is divided into two divisions:
- (a) Division A is for reporting the reporting AI's credit exposures to CCPs arising from *default fund contributions*; and
 - (b) Division B is for reporting the reporting AI's credit exposures to CCPs set out in paragraph 4 below by reference to the role played by the AI in respect of the centrally cleared transactions concerned.
4. **Exposures covered by Division B of this Form**
- (a) Reporting AI as clearing member of a CCP
 - (i) The AI's *default risk exposures* to the CCP in respect of *derivative contracts* and *securities financing transactions* (SFTs) entered into with the CCP for the AI's own purposes.
 - (ii) The AI's default risk exposures to the CCP in respect of *offsetting transactions* entered into with the CCP in the capacity of a *clearing intermediary* between the CCP and the AI's *direct clients* if the AI is obliged to reimburse the direct clients for any loss suffered by them due to changes in the value of their transactions in the event that the CCP defaults.
 - (iii) The AI's default risk exposures to the CCP arising from guarantees provided by the AI to its direct clients for any loss due to changes in the value of the direct clients' transactions in the event that the CCP defaults.
 - (b) Reporting AI as direct client of a clearing member of a CCP
 - (i) Exposures listed below if they are eligible for being risk-weighted in a manner as if they were default risk exposures to *qualifying CCPs* (QCCPs) under section 226ZA(3) or (4) or section 226ZB(2) or (3) of the BCR—
 - (A) the AI's default risk exposures in respect of *CCP-related transactions* entered into with the clearing member in the capacity of an *end client*;
 - (B) the AI's default risk exposures in respect of offsetting transactions entered into with the clearing member in the capacity of a clearing intermediary within a multi-level client structure; and
 - (C) the AI's default risk exposures in respect of transactions entered into with the CCP under which the AI's performance is guaranteed by the clearing member.
 - (c) Reporting AI as indirect client and clearing intermediary within a multi-level client structure (e.g. indirect client A in Fig. 1)

- (i) The AI's default risk exposures in respect of offsetting transactions entered into with a **higher level client** within the structure (e.g. the direct client in Fig. 1) if such exposures are eligible for being risk-weighted in a manner as if they were default risk exposures to QCCPs under section 226ZBA(5)(a) or (b) of the BCR.
- (d) Reporting AI as indirect client and end client (e.g. indirect client B in Fig. 1) within a multi-level client structure
 - (i) The AI's default risk exposures in respect of CCP-related transactions entered into with a higher level client within the structure (e.g. indirect client A in Fig. 1) if such exposures are eligible for being risk-weighted in a manner as if they were default risk exposures to QCCPs under section 226ZBA(5)(a) or (b) of the BCR.
- (e) Regardless of the role played by the reporting AI, its credit exposures to a CCP arising from any **unsegregated collateral** posted by the AI and held by the CCP where neither of the following is true—
 - (i) the collateral is included as part of the AI's default risk exposures to the CCP under section 226V(2)(a) of the BCR;
 - (ii) the collateral is included as part of the AI's default risk exposures to the CCP under Division 1A, 2, 2A or 2B of Part 6A of the BCR.

5. Exposures not covered by this Form

This Form does not cover the following exposures which should be risk-weighted in accordance with **one or more of Parts 4, 5 and 6** of the BCR and reported in **one or more of Forms MA(BS)3(IIIa), (IIIb) and (IIIc)**, as the case requires—

- (a) credit exposures arising from delayed or failed settlement of—
 - (i) cash transactions in securities (other than **repo-style transactions**);
 - (ii) cash transactions in foreign exchange or commodities; and
 - (iii) cash-settled derivative contracts;
- (b) if the reporting AI is a clearing member of a CCP, its default risk exposures in respect of—
 - (i) offsetting transactions and CCP-related transactions entered into with its direct clients; and
 - (ii) guarantees provided by the AI to the CCP on the performance of its direct clients;

- (c) if the reporting AI is a direct client of a clearing member of a CCP (regardless of whether the clearing member acts as a clearing intermediary or guarantees the AI's transactions with the CCP)—
 - (i) the AI's exposures to the clearing member mentioned in paragraph 4(b)(i)(A), (B) and (C) above if they are not eligible for being risk-weighted in a manner as if they were default risk exposures to QCCPs under sections 226ZA(3) or (4) or section 226ZB(2) or (3) of the BCR; and
 - (ii) the AI's default risk exposures in respect of offsetting transactions or CCP-related transactions entered into with a **lower level client** within a multi-level client structure (e.g. indirect client A in Fig. 1);
- (d) if the reporting AI is an indirect client and a clearing intermediary within a multi-level client structure (e.g. indirect client A in Fig. 1)—
 - (i) the AI's exposures mentioned in paragraph 4(c)(i) above if they are not eligible for being risk-weighted in a manner as if they were default risk exposures to QCCPs under section 226ZBA(5)(a) or (b) of the BCR; and
 - (ii) the AI's default risk exposures in respect of offsetting transactions or CCP-related transactions entered into with a lower level client within the structure (e.g. indirect client B in Fig. 1);
- (e) if the reporting AI is an indirect client and end client within a multi-level client structure (e.g. indirect client B in Fig. 1)—
 - (i) the AI's exposures mentioned in paragraph 4(d)(i) above if they are not eligible for being risk-weighted in a manner as if they were default risk exposures to QCCPs under section 226ZBA(5)(a) or (b) of the BCR;
- (f) if—
 - (i) the reporting AI has posted unsegregated collateral with a CCP, a clearing member or a higher level client;
 - (ii) the collateral is held by a person other than the CCP; and
 - (iii) the collateral is not included as part of the AI's default risk exposures to the CCP, clearing member or higher level client under section 226V(2)(a) and Division 1A, 2, 2A or 2B of Part 6A of the BCR,

the credit exposures to that person in respect of the unsegregated collateral.

6. The transactions mentioned in paragraph 5(b), (c), (d) and (e) above are also subject to **CVA risk**. Reporting AIs should calculate the risk-weighted amount for the CVA risk in accordance with Part 8A of the BCR and report the amount in Form MA(BS)3A(II).

Section A: Definitions and General Instructions

7. If a CCP is no longer qualified as a QCCP, a reporting AI may, unless otherwise instructed by the Monetary Authority, within 3 months from the date the CCP lost its QCCP status, continue to calculate the risk-weighted amounts of its default fund contribution and default risk exposures to the CCP as if the CCP were a QCCP. When the 3-month period expires, the AI should calculate the risk-weighted amounts of its exposures to the CCP in accordance with the requirements applicable to a ***non-qualifying CCP*** (non-QCCP).
8. In Division B of this Form—
 - (a) “Principal Amount”—
 - (i) in the case of derivative contracts, means the nominal ***notional amounts*** of the contracts, which should not be confused with any effective notional amount or adjusted notional calculated for the contracts under Part 6A of the BCR. The amount reported should be the gross sum of the nominal notional amounts of the contracts (which is the sum of the nominal notional amounts of the contracts, without the nominal notional amounts of contracts with positive replacement costs being reduced by the nominal notional amounts of contracts with negative or zero replacement costs, regardless of whether the contracts are subject to ***recognized netting***);
 - (ii) in the case of SFTs, means the ***principal amounts*** (within the meaning of section 226MG of the BCR) of—
 - (A) any securities sold or lent to counterparties by the reporting AI under the SFTs;
 - (B) any money paid or lent to counterparties by the reporting AI under the SFTs; and
 - (C) any securities or money provided to counterparties as collateral by the reporting AI under the SFTs; and
 - (iii) in the case of unsegregated collateral posted, means the amount calculated in accordance with section 71(2), 118(2), 163(2A) or 164(2)(b) of the BCR, as the case requires.
 - (b) “**Non-IMM(CCR) Default Risk Exposure**”, in relation to derivative contracts and SFTs for which the reporting AI does not have an ***IMM(CCR) approval*** or for which the reporting AI is permitted under section 10B(5) or (7) of the BCR not to use the ***IMM(CCR) approach***, means—
 - (i) the ***outstanding default risk exposure*** of the derivative contracts calculated by using the ***current exposure method*** or ***SA-CCR approach***; or

- (ii) the default risk exposure of the SFTs calculated under Division 2B of Part 6A of the BCR.
 - (c) “**IMM(CCR) Default Risk Exposure**”, in relation to derivative contracts and SFTs for which the reporting AI has an IMM(CCR) approval, means the outstanding default risk exposure of the derivative contracts and the default risk exposure of the SFTs calculated by using the IMM(CCR) approach.
 - (d) “**Collateral posted Principal Amount**” means the total principal amount of the credit exposures mentioned in paragraph 4(e) above (e.g. unsegregated collateral held by a CCP for purposes other than securing the default risk exposures in respect of contracts or transactions of the AI cleared by the CCP), and does not include *variation margins* mentioned in paragraph 9 below.
 - (e) “Total Exposure After CRM” means—
 - (i) subject to subparagraphs (ii) and (iii)—
 - (A) in the case of items 1*b*, 3*b* and 3*c*—the total of the amounts reported in columns (B2) and (B3);
 - (B) in the case of items 2*a* to 2*g*—the total of the amounts reported in columns (B2), (B3) and (B4);
 - (C) in the case of items 1*c*, 3*d* to 4*f*—the amount reported in column (B4);
 - (ii) if any of the amounts reported in columns (B2) and (B3) is covered by *recognized credit risk mitigation* (CRM) that has not been taken into account in the default risk exposure calculations conducted pursuant to Part 6A of the BCR—the amounts determined in accordance with paragraphs 20 and 21 below; or
 - (iii) if any of the amounts reported in column (B4) is covered by recognized CRM—the amounts determined in accordance with paragraphs 20 and 21 below.
 - (f) “Risk-weighted Amount” means the amount calculated by multiplying the amount reported in column (B5) by the risk-weight specified in column (B6).
9. In cases where the reporting AI is a clearing member of a CCP, any excess variation margin² held by the CCP that is not yet returned to the reporting AI should be regarded as a default risk exposure to the CCP. If the excess variation margin has not been taken into account in calculating the default risk exposure of the derivative contracts or SFTs to which the excess variation margin relates under Division 1A, 2, 2A or 2B of Part 6A of the BCR, the amount of such

² Excess variation margin refers to the amount posted by the AI that is in excess of the amount required under the *margin agreement* entered into with the CCP.

variation margin should be reported in column (B1) and in either column (B2) or column (B3)³, as the case requires.

Section B: Reporting Arrangement for Division A (Default Fund Contribution) of Part IIIe

B.1 Default fund contributions made to QCCPs

10. Reporting AIs that are clearing members of QCCPs should report their credit exposures to the QCCPs arising from default fund contributions in item *I* as follows—

Item no. Nature of Item and Instructions

***I.* Qualifying CCPs**

Column (A1) - Default fund contribution

Report in this column the total amount of funded default fund contributions made by the reporting AI to QCCPs' mutualized loss-sharing arrangements.

Column (A2) - Capital Charge

- For CCPs that fall within paragraph (a) of the definition of “qualifying CCP” in section 226V(1) of the BCR, report in this column the aggregate regulatory capital for the AI's funded default fund contributions made to the QCCPs calculated in accordance with sections 226X(4) and 226Y(3) of the BCR.
- For CCPs that fall within paragraph (b) of the definition of “qualifying CCP” in section 226V(1) of the BCR—
 - if the capital charge for the funded default fund contribution made to a QCCP is calculated by using Formula 23K in the *pre-amended Rules* (as defined in Schedule 16 to the BCR), report in this column the capital charge so calculated;
 - if the capital charge for the funded default fund contribution made to a QCCP is calculated by applying a risk-weight of 1250% in accordance with section 226X(4) and (6) of the pre-amended Rules, report in this column the adjusted capital charge calculated by the following formula—

$$K = \frac{\min\{(2\% \cdot TE + 1250\% \cdot DF); 20\% \cdot TE\} - 2\% \cdot TE}{12.5}$$

where—

K = adjusted capital charge

³ That is, the excess variation margin must be reported in column (B2) or (B3) as a separate exposure.

TE = the AI's total default risk exposure to the QCCP
 DF = the AI's funded default fund contribution made to the QCCP

Column (A4) - Risk-weighted Amount

Report in this column the risk-weighted amount of the AI's funded default fund contributions made to QCCPs calculated by multiplying the amount reported in column (A2) by 12.5.

B.2 Default fund contributions made to non-QCCPs

11. Reporting AIs that are clearing members of non-QCCPs should report their credit exposures to the non-QCCPs arising from default fund contributions in item 2 as follows—

Item no. Nature of Item and Instructions

2. **Non-qualifying CCPs**

2a. Column (A1) - Default fund contribution

Report in this column the total amount of funded default fund contributions made to non-QCCPs that are for covering settlement-risk only products.

2b. Column (A1) - Default fund contribution

Report in this column the total amount of funded default fund contributions made by the reporting AI, and the unfunded default fund contributions that the reporting AI is liable to pay, to non-QCCPs' mutualized loss-sharing arrangements. Any amount of the funded default fund contributions made by the reporting AI that is for covering settlement-risk only products should be excluded from this item and reported in item 2a instead.

Column (A4) - Risk-weighted Amount

Report in this column the risk-weighted amount of the AI's default fund contributions to non-QCCPs calculated by multiplying the amount reported in column (A1) by the risk-weight of 1250%.

Section C: Reporting Arrangement for Division B (Default Risk Exposures) of Part IIIe

C.1 Items 1a to 1c - clearing members' exposures to QCCPs

12. Reporting AIs that are clearing members of QCCPs should report their credit exposures to the QCCPs (i.e. default risk exposures and exposures arising from unsegregated collateral posted) in item 1 as follows—

Item no. Nature of Item and Instructions

1. **Qualifying CCPs**

1a. **Risk-weight 0%**

This item is for reporting credit exposures to QCCPs that are covered by recognized CRM of which the applicable risk-weight is 0% (see detailed reporting arrangements in paragraphs 20 and 21 below).

1b. **Risk-weight 2%**

Column (B1) “Derivative Contracts and SFTs Principal Amount”

Report in this column—

- the total principal amount of the derivative contracts and SFTs with QCCPs in respect of the default risk exposures mentioned in paragraph 4(a) above; and
- the amount of variation margin mentioned in paragraph 9 that should be reported as a separate exposure⁴, if any.

Column (B2) “Non-IMM(CCR) Default Risk Exposure”

Report in this column—

- default risk exposures or outstanding default risk exposures, as the case may be, to QCCPs calculated by using the current exposure method, the SA-CCR approach or the methods set out in Division 2B of Part 6A of the BCR, including those in respect of guarantees mentioned in paragraph 4(a)(iii) above; and
- the amount of variation margin mentioned in paragraph 9 that should be reported as a separate exposure⁵ and relates to the contracts or transactions reported in this column, if any.

⁴ See footnote 3.

⁵ See footnote 3. If the default risk exposures or outstanding default risk exposures mentioned in the first bullet point have been calculated with the excess variation margin mentioned in paragraph 9 taken into account, there should not be any amount falling within the second bullet point.

Item no. Nature of Item and Instructions

Column (B3) “IMM(CCR) Default Risk Exposure”

Report in this column—

- default risk exposures or outstanding default risk exposures, as the case may be, to QCCPs calculated by using the IMM(CCR) approach, including those in respect of guarantees mentioned in paragraph 4(a)(iii) above; and
- the amount of variation margin mentioned in paragraph 9 that should be reported as a separate exposure⁶ and relates to the contracts or transactions reported in this column, if any.

Column (B5) “Total Exposure After CRM”

Report in this column the amounts mentioned in paragraph 8(e) above and, if applicable, in accordance with the reporting arrangements set out in paragraphs 20 and 21 below.

Column (B7) “Risk-weighted Amount”

Report in this column the total risk-weighted amount, that is the product of the amount reported in column (B5) and the risk-weight of 2%.

(See Part IIIe – Annex B for a numerical example.)

1c. **Other risk-weights not specified above**

This item is for reporting the following credit exposures to QCCPs—

- credit exposures that are covered by recognized CRM of which the applicable risk-weight is neither 0% nor 2% (see detailed reporting arrangements in paragraphs 20 and 21 below); and
- credit exposures that are risk-weighted in accordance with Part 4, 5 or 6 of the BCR (i.e. collateral mentioned in paragraph 4(e) held by a QCCP).

Column (B5) should be completed in the same manner as column (B5) of item *1b*.

The AI should report the corresponding risk-weight in column (B6) and report the total risk-weighted amount (i.e. the product of the amounts reported in columns (B5) and (B6) of this item) in column (B7).

⁶ See footnote 5.

C.2 Items 2a to 2h - clearing members' exposures to non-QCCPs

13. Reporting AIs that are clearing members of non-QCCPs should report their credit exposures to the non-QCCPs (i.e. default risk exposures and exposures arising from unsegregated collateral posted) in item 2 as follow—

Item no. Nature of Item and Instructions

2. **Non-qualifying CCPs**

2a. to The credit exposures to a non-QCCP should be reported in columns
2g. (B1) to (B4) of the item for the risk-weight applicable to the non-QCCP under the ***STC approach*** as follows—

Column (B1) “Derivative Contracts and SFTs Principal Amount”

Report in this column—

- the total principal amount of the derivative contracts and SFTs with the non-QCCP in respect of the default risk exposures mentioned in paragraph 4(a) above; and
- the amount of variation margin mentioned in paragraph 9 held by the non-QCCP that should be reported as a separate exposure⁷, if any.

Column (B2) “Non-IMM(CCR) Default Risk Exposure”

Report in this column—

- default risk exposures or outstanding default risk exposures, as the case may be, to the non-QCCP calculated by using the current exposure method, the SA-CCR approach or the methods set out in Division 2B of Part 6A of the BCR, including those in respect of guarantees mentioned in paragraph 4(a)(iii) above; and
- the amount of variation margin mentioned in paragraph 9 held by the non-QCCP that should be reported as a separate exposure⁸ and relates to the contracts or transactions reported in this column, if any.

Column (B3) “IMM(CCR) Default Risk Exposure”

Report in this column—

- default risk exposures or outstanding default risk exposures, as the case may be, to the non-QCCP calculated by using the IMM(CCR) approach, including those in respect of guarantees mentioned in paragraph 4(a)(iii) above; and

⁷ See footnote 3.

⁸ See footnote 5.

- the amount of variation margin mentioned in paragraph 9 held by the non-QCCP that should be reported as a separate exposure⁹ and relates to the contracts or transactions reported in this column, if any.

Column (B4) “Collateral posted Principal Amount”

Report in this column the total principal amount of the AI’s credit exposures to the non-QCCP that fall within paragraph 4(e) above, if any.

Column (B5) “Total Exposure After CRM”

If the credit exposures to the non-QCCP are not covered by any recognized CRM, the total exposure after CRM should be reported in the same row in which the total principal amount of the credit exposures is reported.

If the credit exposures to the non-QCCP are covered by recognized CRM, the AI should fill in this column in accordance with the reporting arrangements set out in paragraphs 20 and 21 below.

Column (B7) “Risk-weighted Amount”

For each item, report in this column the total risk-weighted amount calculated by multiplying the amount reported in column (B5) of the item by the risk-weight specified in column (B6) of the same row.

2h Other risk-weights not specified above

If the credit exposures to a non-QCCP are covered by recognized CRM and the risk-weight applicable to the recognized CRM is other than those specified in items 2a to 2g, the AI should—

- report the *credit protection covered portion* of the credit exposures in column (B5) of this item;
- specify the risk-weight applicable to the recognized CRM in column (B6); and
- report the product of the amounts reported in columns (B5) and (B6) in column (B7).

See detailed reporting arrangements in paragraphs 20 and 21 below.

C.3 Items 3a to 3d - clearing clients’ exposures to clearing members and higher level clients in respect of QCCPs

14. Reporting AIs that are clearing clients should report in items *3a to 3c*—

⁹ See footnote 5.

- (a) their default risk exposures to clearing members or higher level clients if those exposures are eligible for being risk-weighted in a manner as if they were exposures to QCCPs (see section 226ZA(3) and (4), section 226ZB(2) and (3) and section 226ZBA(5) of the BCR); and
- (b) their credit exposures to QCCPs arising from unsegregated collateral mentioned in paragraph 4(e) above.

Item no. Nature of Item and Instructions

3. Qualifying CCPs

3a. Risk-weight of 0%

This item is for reporting credit exposures to clearing members or higher level clients that are covered by recognized CRM of which the applicable risk-weight is 0% (see detailed reporting arrangements in paragraphs 20 and 21 below).

3b. Risk-weight 2%

This item captures default risk exposures that are eligible for being risk-weighted in a manner as if they were default risk exposures to QCCPs under the following sections of the BCR—

- section 226ZA(3) or section 226ZB(2) if the AI is a direct client;
- section 226ZBA(5)(a) if the AI is an indirect client within a multi-level client structure.

Column (B1) “Derivative Contracts and SFTs Principal Amount”

- If the AI is a direct client of a clearing member, report in this column—
 - the total principal amount of the AI’s offsetting transactions and CCP-related transactions with the clearing member (see paragraph 4(b)(i)(A) and (B) above);
 - the total principal amount of the AI’s transactions with the QCCP concerned that are guaranteed by the clearing member (see paragraph 4(b)(i)(C) above).
- If the AI is an indirect client other than an end client (e.g. indirect client A in Fig. 1 above), report in this column the total principal amount of the AI’s offsetting transactions with higher level clients (e.g. the direct client in Fig. 1) (see paragraph 4(c) above).
- If the AI is an indirect client and end client (e.g. indirect client B in Fig. 1 above), report in this column the total principal amount of the AI’s CCP-related transactions with higher level clients (e.g. indirect client A in Fig. 1) (see paragraph 4(d) above).

Column (B2) “Non-IMM(CCR) Default Risk Exposure”

Report in this column default risk exposures or outstanding default risk exposures, as the case may be, calculated by using the current exposure method, the SA-CCR approach or the methods set out in Division 2B of Part 6A of the BCR.

Column (B3) “IMM(CCR) Default Risk Exposure”

Report in this column default risk exposures or outstanding default risk exposures, as the case may be, calculated by using the IMM(CCR) approach.

Column (B5) “Total Exposure After CRM”

Report in this column the amounts mentioned in paragraph 8(e) above and, if applicable, in accordance with the reporting arrangements set out in paragraphs 20 and 21 below.

Column (B7) “Risk-weighted Amount”

Report in this column the total risk-weighted amount, that is the product of the amount reported in column (B5) and the risk-weight of 2%.

3c. Risk-weight of 4%

Report in this item default risk exposures that are eligible for being risk-weighted in a manner as if they were default risk exposures to QCCPs under the following sections of the BCR—

- section 226ZA(4) or section 226ZB(3) if the AI is a direct client; and
- section 226ZBA(5)(b) if the AI is an indirect client in a multi-level client structure.

The detailed reporting arrangements for columns (B1) to (B7) are same as those for item 3b, except that the risk-weight used to calculate the risk-weighted amount reported in column (B7) is 4% instead of 2%.

3d. Other risk-weights not specified above

This item is for reporting the following credit exposures to QCCPs—

- credit exposures that are covered by recognized CRM of which the applicable risk-weight is other than 0%, 2% and 4% (see detailed reporting arrangements in paragraphs 20 and 21 below); and

- credit exposures that are risk-weighted in accordance with Part 4, 5 or 6 of the BCR (i.e. collateral mentioned in paragraph 4(e) held by a QCCP).

Column (B5) should be completed in the same manner as column (B5) of item 3b.

The AI should report the corresponding risk-weight in column (B6) and report the total risk-weighted amount (i.e. the product of the amounts reported in columns (B5) and (B6) of this item) in column (B7).

C.4 Items 4a to 4g - clearing clients' exposures in respect of non-QCCPs

15. Items 4a to 4f

- If a reporting AI is a clearing client and has posted unsegregated collateral mentioned in paragraph 4(e) above to a non-QCCP, the AI should report its credit exposures to the non-QCCP arising from the unsegregated collateral in column (B4) of the item for the risk-weight applicable to the non-QCCP determined under the STC approach.

16. Item 4g

- If any of the amounts reported in column (B4) of items 4a to 4f is covered by recognized CRM and the risk-weight applicable to the recognized CRM is other than those specified in items 4a to 4f, the AI should fill in columns (B5), (B6) and (B7) of item 4g in the same manner as item 2h.

C.5 Items 5 and 6 - total risk-weighted amount for exposures to CCPs

- Report in item 5 the sum of the subtotals of the risk-weighted amounts reported in Division A and Division B.
- Report in item 6 the total risk-weighted amount of the reporting AI's exposures to CCPs after applying the cap mentioned in section 226X(10) and (11) of the BCR.

C.6 CRM Treatments

- In paragraphs 20 and 21, "recognized CRM" refers to the following forms of recognized CRM afforded to credit exposures that fall within the scope of this Form—
 - recognized guarantees* and *recognized credit derivative contracts*; and
 - recognized collateral* received by a reporting AI under SFTs where the default risk exposures of the SFTs are calculated in accordance with section 226MJ of the BCR.

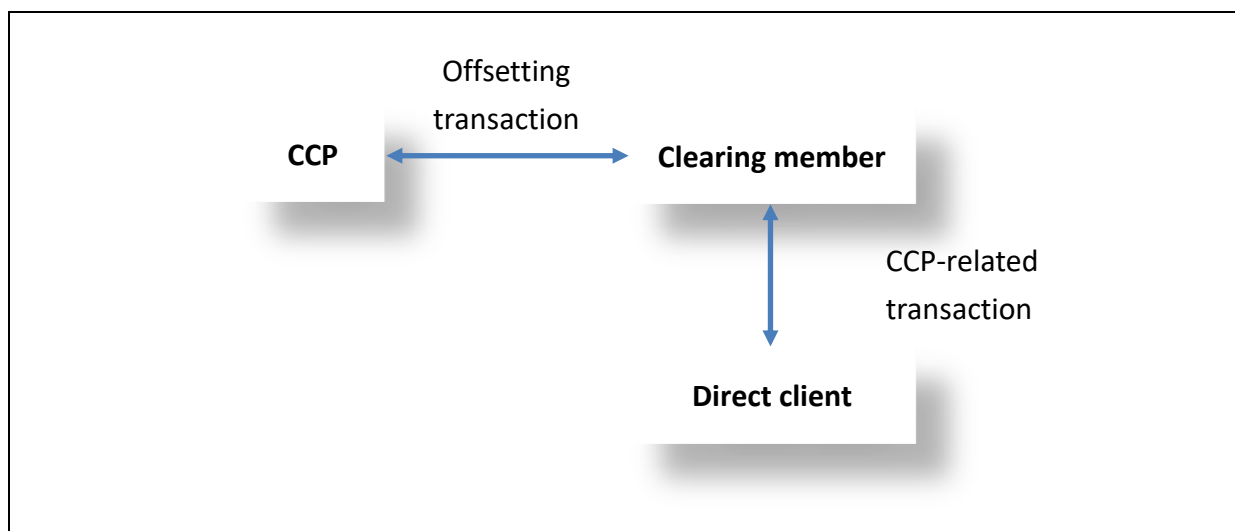
20. A reporting AI may take into account recognized CRM only in the manner permitted under Division 4 of Part 6A of the BCR. In other words—
- (a) in the case of default risk exposures to non-QCCPs, the AI, regardless of the approach adopted by it for the calculation of credit risk for non-securitization exposures, should take into account the CRM effect of recognized CRM in accordance with Part 4 of the BCR;
 - (b) in the case of default risk exposures to QCCPs—
 - (i) reporting AIs that use the **STC approach** for all of their non-securitization exposures should take into account the CRM effect of recognized CRM in accordance with Part 4 of the BCR;
 - (ii) reporting AIs using the **BSC approach** should take into account the CRM effect of recognized CRM in accordance with Part 5 of the BCR; and
 - (iii) reporting AIs that use the **IRB approach** for all or part of their non-securitization exposures should take into account the CRM effect of recognized guarantees and recognized credit derivative contracts in the following manner:
 - (A) subject to subparagraph (B) below, reporting AIs should apply Part 4 of the BCR for recognition of the CRM effect in determining the risk-weighted amounts of the default risk exposures to QCCPs;
 - (B) if—
 - (1) a default risk exposure to a QCCP is fully covered by a recognized guarantee or recognized credit derivative contract; and
 - (2) the AI uses the IRB approach to calculate its credit risk for exposures to the guarantor of the recognized guarantee concerned or the counterparty to the recognized credit derivative contract concerned, as the case may be,
- the AI should apply Part 6 of the BCR for recognition of the CRM effect in determining the risk-weighted amount of the default risk exposure to the QCCP (i.e. by allocating the risk-weight attributable to the **credit protection provider** as determined under the IRB approach to the default risk exposure to the QCCP).
21. The reporting AI should report exposures covered by recognized CRM in the following manner—
- (a) First, divide the exposure concerned into two portions: the **credit protection covered portion** and the **credit protection uncovered portion**;

- (b) Second, report the credit protection covered portion in column (B5) and in the row for the risk-weight applicable to the credit protection provider or the recognized collateral concerned; and
- (c) Lastly, report the credit protection uncovered portion in column (B5) and in the row for the risk-weight applicable to the CCP determined in accordance with Division 4 of Part 6A of the BCR.

Hong Kong Monetary Authority
March 2025

Reporting arrangements for an AI's default risk exposures to clearing members or clearing clients arising from offsetting transactions or CCP-related transactions

Scenario 1: A transaction which is not cleared by means of a multi-level client structure



1.1 AI as clearing member

The AI should report–

- ♦ its default risk exposure to the direct client in respect of the clearing member-client leg (i.e. the CCP-related transaction) in Part IIIa, IIIb or IIIc, as the case requires; and
- ♦ its default risk exposure to the CCP in respect of the CCP-clearing member leg (i.e. the offsetting transaction) in Part IIIe.

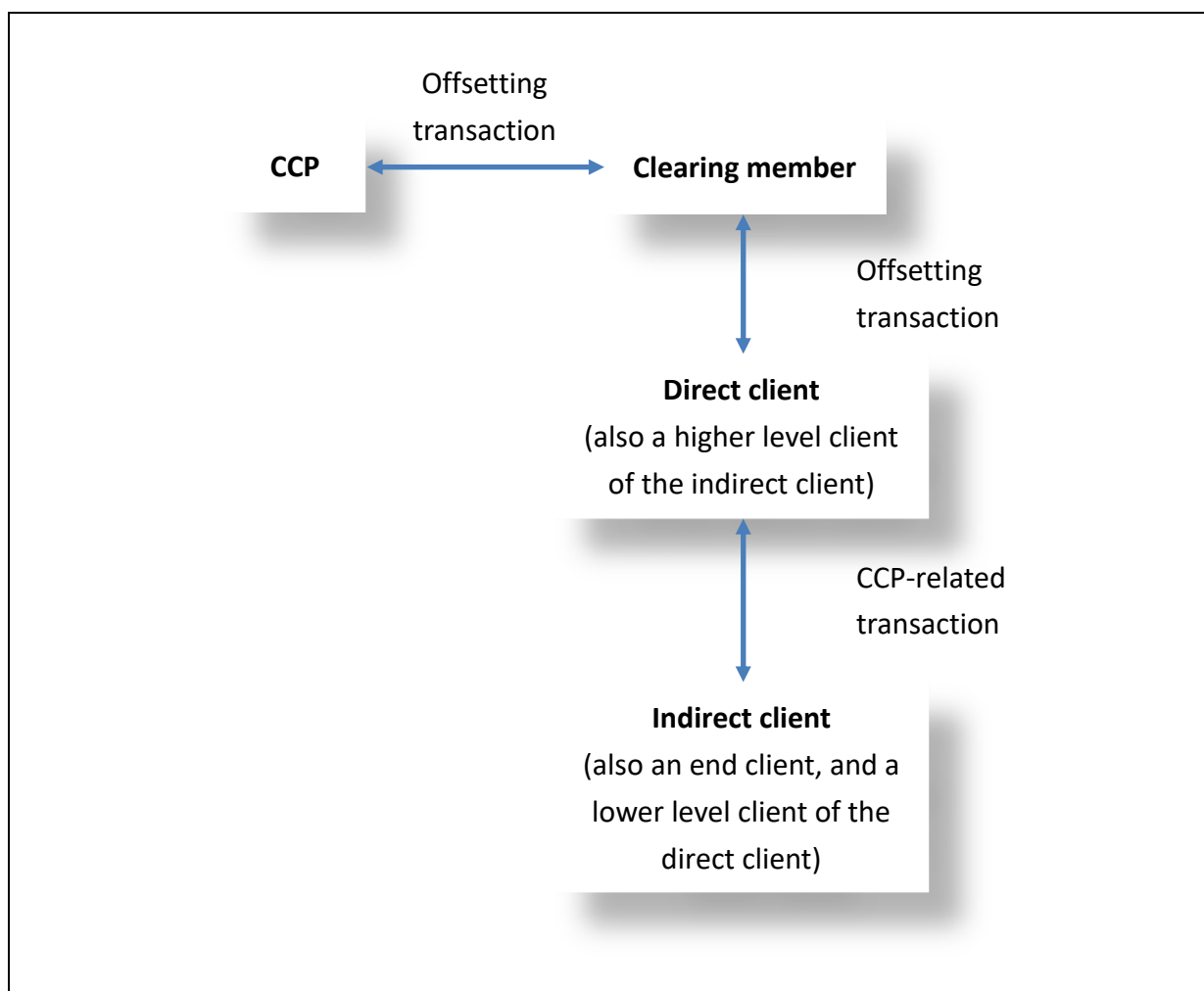
1.2 AI as direct client

The AI should report its default risk exposure to the clearing member in respect of the CCP-related transaction in Part IIIa, IIIb or IIIc, as the case requires.

However, the AI may treat the exposure as a default risk exposure to the CCP and report the exposure in Part IIIe if–

- ♦ the CCP is a qualifying CCP; and
- ♦ the conditions set out in section 226ZA(6), or section 226ZA(6) except section 226ZA(6)(a)(iii), are met.

Scenario 2: A transaction cleared by means of a multi-level client structure



2.1 AI as clearing member

The AI should report–

- ♦ its default risk exposure to the direct client in respect of the offsetting transaction with the direct client in Part IIIa, IIIb or IIIc, as the case requires; and
- ♦ its default risk exposure to the CCP in respect of the offsetting transaction with the CCP in Part IIIe.

2.2 AI as direct client

The AI should report in Part IIIa, IIIb or IIIc, as the case requires–

- ♦ its default risk exposure to the indirect client in respect of the CCP-related transaction; and
- ♦ its default risk exposure to the clearing member in respect of the offsetting

transaction with the clearing member.

However, the AI may treat its default risk exposure to the clearing member as a default risk exposure to the CCP and report the exposure in Part IIIe if–

- ♦ the CCP is a qualifying CCP; and
- ♦ the conditions set out in section 226ZA(6), or section 226ZA(6) except section 226ZA(6)(a)(iii), are met.

2.3 AI as indirect client

The AI should report its default risk exposure to the direct client in respect of the CCP-related transaction in Part IIIa, IIIb or IIIc, as the case requires.

However, the AI may treat the exposure as a default risk exposure to the CCP and report the exposure in Part IIIe if–

- ♦ the CCP is a qualifying CCP; and
- ♦ the conditions set out in section 226ZA(6), or section 226ZA(6) except section 226ZA(6)(a)(iii), are met for the arrangements among the CCP, the clearing member, the direct client and the AI (see BCR section 226ZBA(5)).

Example of calculation of risk-weighted amount of default risk exposure to central counterparty

An AI, which is a clearing member of a qualifying central counterparty (QCCP), enters into a margin agreement with the QCCP under which only the AI is required to post variation margin (VM) (i.e. the agreement is a one-way margin agreement). The AI uses the SA-CCR approach to calculate default risk exposures of derivative contracts.

As of 30 June—

- the principal amount of the derivative contracts in the netting set with the QCCP is HK\$300 million;
- the AI has posted initial margin (IM) of HK\$2 million and VM of HK\$0.5 million to the QCCP; and
- the haircut applicable to the IM is 5% while the haircut applicable to the VM is 0%.

I. Calculation of risk-weighted amount of default risk exposures (all monetary figures are expressed in HK\$'000 unless otherwise specified)

Since a one-way margin agreement is not a variation margin agreement as defined in section 226BA of the BCR, derivative contracts covered by a one-way margin agreement is treated as unmargined contracts (see paragraph (a) of the definition of “unmargined contracts” in section 226BA). Hence, the default risk exposure of the netting set with the QCCP must be calculated in accordance with section 226BC of the BCR.

1. Calculation of RC

Under section 226BC, RC is calculated by using Formula 23AB as follows:

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

- (a) The AI determines that the current mark-to-market value (V) of the netting set is +3000; and

(b) C (i.e. the haircut value of net collateral held for the netting set by the AI) is calculated in accordance with section 226BC(4) of the BCR as follows:

$$(i) \text{ haircut value of VM posted (calculated under section 226BJ(4))} = 500 \times (1 + 0\%) = 500$$

$$(ii) \text{ NICA (calculated under section 226BJ(3))} = 0 - 2000 \times (1 + 5\%) = -2100$$

$$(iii) C = -2100 - (500) = -2600$$

$$(c) \text{ therefore, } RC = 3000 - (-2600) = 5600$$

2. Calculation of potential future exposure (PFE)

The AI determines that the PFE of the netting set, as calculated in accordance with section 226BR(1) of the BCR, is HK\$10 million.

3. Calculation of default risk exposure

$$\begin{aligned} \text{The default risk exposure to the QCCP} &= 1.4 \times (RC + PFE) \\ &= 1.4 \times (5600 + 10000) \\ &= \mathbf{21840} \end{aligned}$$

II. Reporting Arrangement

Part IIIe

(in HK\$'000)

Division B: Default Risk Exposures

Clearing member's exposures							
	Derivative Contracts and SFTs			Collateral posted			
	Principal Amount (B1)	Non-IMM(CCR) Default Risk Exposure (B2)	IMM(CCR) Default Risk Exposure (B3)	Principal Amount (B4)	Total Exposure After CRM (B5)	Risk-weight % (B6)	Risk-weighted Amount (B7)
1. Qualifying CCPs							
1a. Risk-weight 0%							
1b. Risk-weight 2%	300,000	21,840			21,840	2	437
1c. Other risk-weights not specified above							
2. Non-qualifying CCPs							
2a. Risk-weight 0%							
SUBTOTAL	300,000	21,840			21,840		437

Completion Instructions

Return of Capital Adequacy Ratio Part V - Risk-weighted Amount for Operational Risk Form MA(BS)3(V)

Introduction

1. Form MA(BS)3(V) should be completed by each authorized institution (AI) incorporated in Hong Kong to calculate **operational risk** capital charge under Part 9 of the Banking (Capital) Rules (BCR).
2. This Form and its completion instructions should be read in conjunction with the BCR and relevant supervisory policy/guidance related to the capital adequacy framework.
3. An institution which has been approved by the MA to use a calculation method **not explicitly stated in Part 9 of the BCR** should report its **risk-weighted amount for operational risk** in a manner as agreed with the MA.

Specific Instructions

Division A: Calculation of Risk-weighted Amount

4. Report in item 1 (**business indicator component**) the value calculated as the sum of item 8a multiplied by 12%, item 8b multiplied by 15% and item 8c multiplied by 18%.
5. Item 2 (**internal loss multiplier**)
 - If **formula approach** is used to calculate **ILM**, report the value calculated by the formula:
$$\ln [\exp(1) - 1 + (LC/BIC)^{0.8}]$$

where BIC is the value reported in column 1 of item 1,
and LC is the value reported in column 1 of item 9.
 - Otherwise, report 1, 1.25 or another value as required by the BCR.
6. Report in item 3 (**capital charge for operational risk**) the value calculated as the product of item 1 and item 2.
7. Report in item 4 (**total risk-weighted amount for operational risk**) the value as item 3 multiplied by 12.5.

Division B: Calculation of Business Indicator

8. Except items 7a(i) and 7b(i) (see paragraph 17), report all figures in Division B in positive sign.
9. For the purposes of reporting Division B, an institution which has been in operation for **18 months or more but less than 3 years** should treat any partial year of operation of 6 months or more as a full year, and any partial year of operation of less than 6 months as zero.
10. Report Q1 by selecting from the following three options provided to indicate years of operation of the institution:
 - (a) <18 months;
 - (b) >=18 months but <2.5 years;
 - (c) >=2.5 years.
11. For the purposes of paragraphs 12 to 15 of these completion instructions –
 - if any partial year is counted as a full year, the income, expenses or P&L of that partial year should each be annualized for that year. As for **interest earning assets**, the arithmetic mean of the amount of interest earning assets outstanding at the end of each full **calendar quarter** within that partial year should be taken as the value of interest earning assets for that year.
 - if any partial year of operation is treated as zero, that partial year of operation should not be taken into account in both the numerator and denominator of the formula for calculating the arithmetic mean of the item for the **last 3 years**.

Illustrative examples of business indicator calculation for both partial and full year of operation are shown at **Annex V-A**.

12. Report the following income, expenses, asset and P&L items for each of the last 3 years ending on the reporting **calendar quarter end date**:
 - Item 5a(i) (**interest income**, including interest income from finance and operating leases)

For the avoidance of doubt, interest income from finance and operating leases should include rental income on lease term from investment properties.
 - Item 5a(ii) (**interest expenses**, including interest expenses from finance and operating leases)
 - Item 5b(i) (**interest earning assets**)

For the avoidance of doubt, interest rate derivative assets that affect the institution's interest income under the applicable accounting standard should be included in this item. If the fair value of these derivative assets is –

- (i) positive, they should be captured at such value (not their notional value);
- (ii) negative, they should not be captured and should not be used to offset other interest earning assets.

- Item 5c(i) (*dividend income*)
- Item 6a(i) (*fee and commission income*)
- Item 6b(i) (*fee and commission expenses*)
- Item 6c(i) (*other operating income*)
- Item 6d(i) (*other operating expenses*)
- Item 7a(i) (*net P&L on trading book*)
- Item 7b(i) (*net P&L on banking book*).

The above items are mutually exclusive and therefore each income statement or balance sheet item should be reported under only one of them. If an amount is denominated in a currency other than Hong Kong Dollar, the closing middle market T/T rates at the end of last quarter of each respective year should be used for conversion purposes.

13. Except item 5b(i), calculate the items stated under paragraph 12 by:

- (i) **First year:** aggregating the gross value of the item recognized by the institution in the calendar quarter ending on the reporting calendar quarter end date and in each of the 3 immediately preceding calendar quarters;
- (ii) **Second year:** aggregating the gross value of the item recognized by the institution in the year immediately preceding the first year; and
- (iii) **Third year:** aggregating the gross value of the item recognized by the institution in the year immediately preceding the second year.

14. Calculate item 5b(i) as follows:

- (i) First year: the arithmetic mean of the amount of interest earning assets outstanding at the end of the calendar quarter ending on the reporting calendar quarter end date and at the end of each of the 3 immediately preceding calendar quarters;
- (ii) Second year: the arithmetic mean of the amount of interest earning assets outstanding at the end of the 4 calendar quarters immediately preceding the first year; and

- (iii) Third year: the arithmetic mean of the amount of interest earning assets outstanding at the end of the 4 calendar quarters immediately preceding the second year.
15. Report the following items by the respective methods stated:
- (i) Item 5a (*average of absolute value of **net interest income***)
= arithmetic mean of the absolute value of (item 5a(i) – item 5a(ii)) for the last 3 years;
 - (ii) Item 5b (*average of interest earning assets*)
= arithmetic mean of item 5b(i) for the last 3 years;
 - (iii) Item 5c (*average of dividend income*)
= arithmetic mean of item 5c(i) for the last 3 years;
 - (iv) Item 5 (***interest, leases and dividend component***)
= the lower of item 5a and $2.25\% \times$ item 5b, plus item 5c;
 - (v) Item 6a (*average of fee and commission income*)
= arithmetic mean of item 6a(i) for the last 3 years;
 - (vi) Item 6b (*average of fee and commission expenses*)
= arithmetic mean of item 6b(i) for the last 3 years;
 - (vii) Item 6c (*average of other operating income*)
= arithmetic mean of item 6c(i) for the last 3 years;
 - (viii) Item 6d (*average of other operating expenses*)
= arithmetic mean of item 6d(i) for the last 3 years;
 - (ix) Item 6 (***services component***)
= the higher of item 6a and item 6b, plus the higher of item 6c and item 6d;
 - (x) Item 7a (*average of absolute value of net P&L on trading book*)
= arithmetic mean of the absolute value of item 7a(i) for the last 3 years;
 - (xi) Item 7b (*average of absolute value of net P&L on banking book*)
= arithmetic mean of the absolute value of item 7b(i) for the last 3 years; and
 - (xii) Item 7 (***financial component***)
= Item 7a + item 7b
16. In the calculation of items 5a, 7a and 7b, the absolute value of the items concerned in an individual year should be taken first before determining the arithmetic mean of the items for the last 3 years.
17. For items 7a(i) and 7b(i), a net profit should be reported in positive sign while a net loss should be reported in negative sign.

18. Report item 8 (**business indicator**) as the sum of items 5, 6 and 7.
19. Report breakdown of item 8 into sub-items 8a, 8b and 8c. These sub-items should add up to the value of item 8. Illustrations are provided in the table below:

(HK\$'000)

	Example 1	Example 2	Example 3
Item 8 business indicator	400,000	60,000,000	450,000,000
Item 8a amount of BI ≤ \$10bn	400,000	10,000,000	10,000,000
Item 8b amount of BI > \$10bn but ≤ \$300bn	0	50,000,000	290,000,000
Item 8c amount of BI > \$300bn	0	0	150,000,000

Division C: Calculation of Loss Component

20. To avoid doubt, Division C should be completed by all institutions, including those which do not use loss data to calculate ILM.
21. A reporting institution's timeframe for reporting operational losses (**reporting window**) is the period upto 10 years in which it has met the standards for **high quality operational loss data**. For this purpose, it should treat any partial year of meeting the standards for high quality operational loss data of 6 months or more as a full year, and any partial year of meeting the standards for high quality operational loss data of less than 6 months as zero. Specifically -
- (i) since one of the requirements for the calculation of ILM is at least 5-year high quality operational loss data, the reporting window of an institution which calculates ILM must be an integer between 5 and 10 years.
 - (ii) all AIs should have started maintaining high quality operational loss data from 25 January 2024 on the revised SPM module [OR-1](#) "Operational Risk Management" becoming effective. The reporting window of an institution which does not calculate ILM should be 0 (e.g. newly licensed institution) or an integer between 1 and 10 years.
22. As an example, let us assume that an institution has maintained high quality operational loss data for the last 5 years and 8 months. While its reporting window is the past 6 years, it should report only the impacts of the operational events occurred during the past 5 years and 8 months. The impacts of operational events which occurred in the 4

months within the 6-year reporting window where the data have not yet met the standard for high quality operational loss data should be excluded.

23. Report Q2 by selecting from the options provided (i.e. Yes/No) to indicate whether the institution uses loss data to determine its ILM.
24. Report Q3 by inputting an integer from 0 to 10 to indicate the number of years of high quality operational loss data the institution has maintained as at the reporting position date. If high quality operational loss data have been maintained for 10 years or more, report 10 years.
25. Expected answers to Q2 and Q3 are set out in the table below.

Answer to Q2	Expected answer to Q3
Yes	An integer from 5 to 10 (same as reporting window)
No	An integer from 0 to 10 (same as reporting window)

26. A reporting institution should report in the Table under Division C only the impacts of an **operational loss event** of which the amount of losses after deduction of recoveries **over the institution's reporting window** is **more than or equal to HK\$200,000**. For any loss impacts that are denominated in a currency other than Hong Kong Dollar, the reporting institution has to use the same exchange rate that is used to convert the loss impacts in their financial statements of the period the loss impacts were accounted for.
27. To avoid doubt, losses which have been taken into account in the calculation of the **risk-weighted amount for credit risk** should be excluded from the amount of operational losses. Moreover, recognition of operational losses should be based on the date(s) of accounting and recognition of recoveries should be based on the date(s) of payment received (also see paragraph 32).

28. Item 9 (**loss component**)

A reporting institution should report the value calculated by the following formula:

$$15 \times \frac{\text{sum of item 9(e) columns 2 to 11}}{\text{answer to Q3}}$$

29. Report the following items:

- Item 9a(i) upto 9a(vii) (*amount of losses by loss event types*);

- Item 9b (*amount of recoveries*¹); and
- Item 9d (*amount of excluded losses*)

for each of the years during the reporting window of the institution ending on the reporting **calendar quarter end date** in column 2 to column 11 as applicable by:

- (i) *First year (t) (column 2)*: the amount of losses/recoveries/excluded losses recognized by the institution in the calendar quarter ending on the reporting calendar quarter end date and in each of the 3 immediately preceding calendar quarters;
 - (ii) *Year t-1 (column 3)*: the amount of losses/recoveries/excluded losses recognized by the institution in the year immediately preceding the first year; and
 - (iii) *Year t-2 (column 4)* and each of the preceding years (columns 5 to 10): the amount of losses/ recoveries/ excluded losses recognized similarly for the corresponding year.
30. Amount of losses, recoveries and excluded losses should all be reported in positive values.
 31. Report in item 9a (*amount of losses*) the sum of item 9a(i) to item 9a(vii) for each of the columns from 2 to 11 as applicable.
 32. Report in item 9b (*amount of recoveries*) the amount of recoveries in relation to the operational loss event in the years within the reporting window according to accounting dates. Include in this item the release of over provision of operational losses, in which case, the accounting date of such recovery should be the accounting date of the provision reversal entry.
 33. Report in item 9c (*amount of losses net of recoveries*) the value of item 9a minus item 9b for each of the columns from columns 2 to 11 as applicable. To avoid doubt, a **net loss** amount should be reported in positive sign and a **net recovery** amount should be reported in **negative** sign.
 34. Report in item 9d (*amount of excluded losses*) the amount of losses approved by the MA to be excluded from the calculation of the loss component for each of the columns from 2 to 11 as applicable.
 35. Report in item 9e (*amount of losses net of recoveries and excluded losses*) the value of item 9c minus item 9d for each of the columns from columns 2 to 11 as applicable. To avoid doubt, a **net loss** amount should be reported in positive sign and a net amount on the “recovery side” should be reported in negative sign.
 36. Illustrations of the reporting of Division C are shown at **Annex V-B**.

¹ For the avoidance of doubt, recoveries include only those where the actual amount has been received (i.e. amount receivable should not be included). Recoveries also do not include tax effects (e.g. reductions in corporate income tax liability due to operational losses).

Hong Kong Monetary Authority
March 2025

Annex V-A

Illustration of calculation of **Division B (business indicator)** for full year and partial year of operation

Reporting position: 31 March 2025

Examples of reporting items	First Year	Second Year	Third Year	No. of years effectively captured*
Reporting institution in operation for 3 years or more				
Interest income, including interest income from finance and operating leases	Sum of amount recognised for the quarters ended on 31.03.25, 31.12.24, 30.09.24 and 30.06.24	sum of amount recognised for the quarters ended on 31.03.24, 31.12.23, 30.09.23 and 30.06.23	sum of amount recognised for the quarters ended on 31.03.23, 31.12.22, 30.09.22 and 30.06.22	3
Interest earning assets	arithmetic mean of the amount outstanding as at 31.03.25, 31.12.24, 30.09.24 and 30.06.24	arithmetic mean of the amount outstanding as at 31.03.24, 31.12.23, 30.09.23 and 30.06.23	arithmetic mean of the amount outstanding as at 31.03.23, 31.12.22, 30.09.22 and 30.06.22	3
Reporting institution in operation for 2.5 years or more but less than 3 years				
Interest income, including interest income from finance and operating leases	Same as above	Same as above	>6 months but < 9 months Annualise the sum of the amount recognized for the quarters ended on 31.03.23 and 31.12.22 >9 months but < 1 year Annualise the sum of the amount recognized for the quarters ended 31.03.23, 31.12.22 and 30.09.22	3
Interest earning assets	Same as above	Same as above	>6 months but < 9 months Arithmetic mean of the amount outstanding as at 31.03.23 and 31.12.22 >9 months but < 1 year Arithmetic mean of the amount outstanding as at 31.03.23, 31.12.22 and 30.09.22	3
Reporting institution in operation for 2 years or more but less than 2.5 years				

Interest income, including interest income from finance and operating leases	Same as above	Same as above	zero	2
Interest earning assets	Same as above	Same as above	zero	2
Reporting institution in operation for 1.5 years or more but less than 2 years				
Interest income, including interest income from finance and operating leases	Same as above	>6 months but < 9 months Annualise the sum of the amount recognized for the quarters ended on 31.03.24 and 31.12.23 >9 months but < 1 year Annualise the sum of the amount recognized for the quarters ended on 31.03.24, 31.12.23 and 30.09.23	zero (reporting institution not yet in operation)	2
Interest earning assets	Same as above	>6 months but < 9 months Arithmetic mean of the amount outstanding as at 31.03.24 and 31.12.23 >9 months but < 1 year Arithmetic mean of the amount outstanding as at 31.03.24, 31.12.23 and 30.09.23	zero (reporting institution not yet in operation)	2

*The same number should be used in the denominator of the formula for calculating the arithmetic mean for the last 3 years.

Illustrations of Reporting Division C

Reporting position: 31 March 2025

A reporting institution has maintained loss data from 1.9.2012 to 31.3.2025 (i.e. 12 years and 7 months). Its data started to meet the standards for high quality operational loss data only from 1.9.2016 and so has maintained high quality operational loss data for 8 years and 7 months. It has recorded the following loss events:

(All monetary figures in HK\$ thousand)

- Loss event #1 (Suitability /disclosure issues): loss of \$250 in 2013.
- Loss event #2 (Dispute relating to outsourcing): loss of \$500 in Dec 2014 and \$100 in Dec 2015; recovered \$200 in Dec 2016.
- Loss event #3 (Damage to physical assets): loss of \$300 in Jun 2016.
- Loss event #4 (Internal fraud): loss of \$100 in 2017 and \$150 in 2018.
- Loss event #5 (Theft): loss of \$1,000 in 2020; recovered \$300 in 2023.

The institution should report Division C as follows:

Q2 – “Yes” if the institution uses loss data to determine ILM, otherwise “No”.

Q3 – The answer is 9 (period of high quality operational data maintained rounded up to next higher integer). The reporting window of the institution is from 1.4.2016 to 31.3.2025.

It should report impacts of operational loss events recorded for the past 9 years in column 2 to column 10.

Loss event #1: It should not be reported because it falls outside the reporting window of this institution.

Loss event #2: Since the losses in 2014 and 2015 were outside the reporting window, only the recovery in 2016 counts. As the loss amount of -\$200 (negative sign denotes recovery) is less than the \$200 reporting threshold, it is not necessary to report this event.

Loss event #3: Although the loss exceeds the reporting threshold, the institution has not yet met the standards of high quality operational loss data in Jun 2016. Therefore, this event should not be reported.

Loss event #4: All the impacts involved in this event should be reported because they fall within the reporting window and the net loss amount of this event during

the reporting window (i.e. $\$250 = \$100 + \$150$) exceeds the \$200 reporting threshold.

Loss event #5: All the impacts involved in this event should be reported because they fall within the reporting window and the net loss amount of this event during the reporting window (i.e. $\$700 = \$1,000 - \$300$) exceeds the \$200 reporting threshold.

Completion Instructions

Return of Capital Adequacy Ratio Part VI – Risk-weighted amount for Sovereign Concentration Risk Form MA(BS)3(VI)

Introduction

1. Form MA(BS)3(VI) should be completed by an authorized institution (AI) incorporated in Hong Kong to determine its *risk-weighted amount for sovereign concentration risk* for the calculation of capital adequacy ratios.
2. This Form and its completion instructions should be read in conjunction with the Banking (Capital) Rules (BCR), the Banking (Exposure Limits) Rules (BELR) and the relevant supervisory policy/guidance as applicable.

Section A: General Instructions

3. This part collects data on an AI's *concentrated sovereign exposure* to a jurisdiction. An AI has concentrated sovereign exposure to a jurisdiction if the aggregate amount of its *specified sovereign exposure* to all *specified sovereign entities* in that jurisdiction exceeds 100% of its *Tier 1 capital*. In essence, an AI's specified sovereign exposure to a specified sovereign entity corresponds to the AI's *ASC exposure* to the sovereign as calculated in accordance with Part 7 of the BELR, with necessary modifications, as set out in section 342A of the BCR.
4. When determining whether the threshold for sovereign concentration risk mentioned in paragraph 3 above is exceeded for a jurisdiction, an AI should use the amount of its Tier 1 capital as reported in Part I, Division A, item 1.1 of the Return of Capital Adequacy Ratio (i.e. Form MA(BS)3(I)) of the previous quarter if there has been no significant reduction in the amount of its Tier 1 capital during the reporting period. If there has been a reduction of 10% or more in the amount of the AI's Tier 1 capital, the AI should use its most recent Tier 1 capital figure instead, and inform its usual contact at the HKMA of the change in the basis of Tier 1 capital used on or before the applicable submission date of the return.

Section B: Specific Instructions

5. Report in Column (2) of Item 1 under Part VI the code of a jurisdiction, with reference to the codes set out in the Return of International Banking Statistics (MA(BS)21)¹, for any jurisdiction to which the AI has a concentrated sovereign exposure.
6. Report in Column (3) of Item 1 under Part VI the risk-weighted amount of the AI's

¹ <https://www.hkma.gov.hk/eng/key-functions/banking/banking-regulatory-and-supervisory-regime/regulatory-supervisory-framework/ma-bs-21/>

concentrated sovereign exposure to a jurisdiction reported in Column (2) as calculated in accordance with section 344 of the BCR. See also Section C for an illustrative example of the calculation of risk-weighted amount for sovereign concentration risk.

Section C: Illustrative example of the calculation of risk-weighted amount for sovereign concentration risk

Suppose an AI has the following specified sovereign exposures to Jurisdictions A (HK\$4m) and B (HK\$2m) (both are specified sovereign entities) as tabulated below, and the AI's Tier 1 capital reported in the last quarter was HK\$0.6m.

The AI has concentrated sovereign exposure to Jurisdictions A and B because the amount of its specified sovereign exposure to each of them exceeds the amount of the AI's Tier 1 capital. The risk-weighted amount for sovereign concentration risk of the AI would be calculated in accordance with section 344 of the BCR as follows:

Portion of concentrated sovereign exposure (% refers to % of the AI's Tier 1 capital)	Jurisdiction A		Jurisdiction B	
	Exposure amount (HK\$'000)	Risk-weighted amount (HK\$'000)	Exposure amount (HK\$'000)	Risk-weighted amount (HK\$'000)
Portion > 0% but ≤ 100% (Not applicable)	600	-	600	-
Portion > 100% but ≤ 150% (Risk-weight 5%)	300	15	300	15
Portion > 150% but ≤ 200% (Risk-weight 6%)	300	18	300	18
Portion > 200% but ≤ 250% (Risk-weight 9%)	300	27	300	27
Portion > 250% but ≤ 300% (Risk-weight 15%)	300	45	300	45
Portion > 300% (Risk-weight 30%)	2,200	660	200	60
Total risk-weighted amount for sovereign concentration risk*	4,000	765 (Report under column 3, item 1)	2,000	165 (Report under column 3, item 1)

* The total risk-weighted amount for sovereign concentration risk to all jurisdictions of 930 (i.e. 765 + 165) in this example will be system-generated in item 2 of Part VI.

Hong Kong Monetary Authority
March 2025