

## 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  $2.25\% \times \text{item 5b}$ , 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 <i>BI</i> ≤ \$10bn	400,000	10,000,000	10,000,000
Item 8b amount of <i>BI</i> > \$10bn but ≤ \$300bn	0	50,000,000	290,000,000
Item 8c amount of <i>BI</i> > \$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*<sup>1</sup>); 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**.

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<sup>1</sup> 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	<p>&gt;6 months but &lt; 9 months Annualise the sum of the amount recognized for the quarters ended on 31.03.23 and 31.12.22</p> <p>&gt;9 months but &lt; 1 year Annualise the sum of the amount recognized for the quarters ended 31.03.23, 31.12.22 and 30.09.22</p>	3
Interest earning assets	Same as above	Same as above	<p>&gt;6 months but &lt; 9 months Arithmetic mean of the amount outstanding as at 31.03.23 and 31.12.22</p> <p>&gt;9 months but &lt; 1 year Arithmetic mean of the amount outstanding as at 31.03.23, 31.12.22 and 30.09.22</p>	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	<p>&gt;6 months but &lt; 9 months Annualise the sum of the amount recognized for the quarters ended on 31.03.24 and 31.12.23</p> <p>&gt;9 months but &lt; 1 year Annualise the sum of the amount recognized for the quarters ended on 31.03.24, 31.12.23 and 30.09.23</p>	zero (reporting institution not yet in operation)	2
Interest earning assets	Same as above	<p>&gt;6 months but &lt; 9 months Arithmetic mean of the amount outstanding as at 31.03.24 and 31.12.23</p> <p>&gt;9 months but &lt; 1 year Arithmetic mean of the amount outstanding as at 31.03.24, 31.12.23 and 30.09.23</p>	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.