Completion Instructions

Return of Capital Adequacy Ratio
Part IIId – Risk-weighted Amount for Credit Risk
(Securitization Exposures)
Form MA(BS)3(IIId)

Introduction

1. This Form collects information on ***securitization exposures*** of authorized institutions incorporated in Hong Kong with different Divisions to cater for reporting under the ***standardized (securitization) approach (STC(S) approach)*** or ***the internal ratings-based (securitization) approach (IRB(S) approach)***.

2. This Form contains the following five main Divisions:

Division I: Summary of Risk-weighted Amount and Capital Deductions

Division II: Securitization Exposures under STC(S) Approach

(i) Division IIA: Securitization Exposures under STC(S) Approach (excluding Exposures reported in Divisions IIB & V)

(ii) Division IIB: Eligible ***Liquidity Facilities*** and Eligible ***Servicer Cash Advance Facilities*** under STC(S) Approach

Division III: Securitization Exposures under IRB(S) Approach

(i) Division IIIA: ***Rated*** Securitization Exposures calculated by Ratings-based Method under IRB(S) Approach (excluding Exposures reported in Divisions IIIC & V)

(ii) Division IIIB: ***Unrated*** Securitization Exposures calculated by Supervisory Formula Method under IRB(S) Approach (excluding Exposures reported in Divisions IIIC & V)

(iii) Division IIIC: Eligible Liquidity Facilities and Eligible Servicer Cash Advance Facilities under IRB(S) Approach

Division IV: Memorandum Items on Liquidity Facilities and Servicer Cash Advance Facilities under STC(S) Approach and IRB(S) Approach

Division V: ***Investors' Interest*** for Securitization Exposures of Originating AIs subject to ***Early Amortization Provision*** under STC(S) Approach and IRB(S) Approach

3. The completion instructions contain six sections. Section A provides definitions and clarification of certain items. Sections B, C, D, E and F explain the specific reporting requirements for individual Divisions of the return.

4. This Form and completion instructions should be read in conjunction with Part 7 of the Banking (Capital) Rules.

Section A: Definitions and Clarification

5. Scope of reporting:

   (a) The securitization framework applies to securitization exposures[1] in the ***banking book*** only.

   (b) For ***securitization transactions*** that meet the operational requirements specified in Schedules 9 and 10 of the Rules, the ***originating institution*** may, with the ***prior consent*** of the Monetary Authority (MA) –

      (i) in the case of ***traditional securitization transactions***, exclude the ***underlying exposures*** of the transactions from the calculation of risk-weighted amount (RWA); and

      (ii) in the case of ***synthetic securitization transactions***, calculate the RWA of the underlying exposures of the transactions according to the requirements set out in section 243 or 255 of the Rules based on the approach used by the institution to calculate its credit risk for the class of exposures into which the underlying exposures would fall if they were not securitized, and report them in Form MA(BS)3(IIIa), Form MA(BS)3(IIIb) or Form MA(BS)3(IIIc) as appropriate.

6. A reporting institution is required to complete the Divisions of the Form which are relevant to the approach they use as follows:

   (a) Reporting institutions using only the STC(S) Approach: Divisions I, IIA and B, IV and V

   (b) Reporting institutions using only the IRB(S) Approach: Divisions I, IIIA, B and C, IV and V

   (c) Reporting institutions using a combination of the STC(S) approach and the IRB(S) approach: all Divisions

   A reporting institution should refer to sections 15 and 16 of the Rules to determine which approach to use for its securitization exposures.

[1] Transactions under which exposures are securitized in one single ***tranche*** do not fall within the securitization framework.

7. "Principal Amount"

   (a) in the case of the STC(S) approach, should be reported **net** of ***specific provisions*** or partial write-offs;

   (b) in the case of the IRB(S) approach, should be reported **gross** of specific provisions or partial write-offs.

8. "Principal Amount after CRM" means the reported principal amount adjusted for the capital effect of ***recognized credit risk mitigation*** (CRM) techniques. The latter refers to techniques the reporting institution may use to mitigate credit risk, and hence reduce the capital requirement of an exposure. CRM in this context refers to that used to hedge the credit risk of a securitization exposure rather than the underlying exposures of the securitization transaction concerned.

9. Where a securitization exposure is not covered by any recognized CRM techniques, the amount reported in the row with the risk-weight applicable to the exposure in the columns of "Principal Amount" and "Principal Amount after CRM" will be the same.

10. Where a reporting institution uses the simple approach (i.e. in the case of collateral) or substitution of risk-weights (i.e. in the case of ***guarantee*** or ***credit derivative contracts***) to calculate the CRM effect of its securitization exposures, and a securitization exposure of the institution is covered fully or partially by recognized CRM techniques, the principal amount of the exposure before adjusting for the CRM effect will be reported in the column of "Principal Amount" in the row with the risk-weight applicable to the exposure, and the principal amount of the uncovered portion will be reported in the column of "Principal Amount after CRM" in the same row. The principal amount of the covered portion, which is subject to a lower risk-weight, will be reported in the column of "Principal Amount after CRM" in the row with the risk-weight applicable to the covered portion.

11. Where a reporting institution uses the comprehensive approach (i.e. in the case of collateral) to calculate the CRM effect of its securitization exposures, and a securitization exposure of the institution is covered fully or partially by recognized CRM techniques, the principal amount of the exposure before adjusting for the CRM effect will be reported in the column of "Principal Amount" in the row with the risk-weight applicable to the exposure, and the principal amount of the exposure after adjusting for the CRM effect will be reported in the column of "Principal Amount after CRM" in the same row.

12. If a reporting institution is not the originating institution of a securitization transaction but provides credit protection (regardless of whether such protection constitutes recognized CRM) to a securitization exposure arising from the transaction, it should calculate the RWA in respect of the covered portion of the exposure as if it were an ***investor*** in the exposure. If it provides credit protection to an unrated ***credit enhancement***, it should treat the credit protection provided as if it were directly providing the unrated credit enhancement.

13. Credit enhancements provided by a reporting institution include all arrangements that could result in the institution absorbing losses of a ***special purpose entity*** (SPE), investors, or any providers of liquidity facility or servicer cash advance facility in respect of a securitization transaction. A credit enhancement facility can be in the form of a first loss facility or a second loss facility.

14. For capital adequacy purposes, a liquidity facility or servicer cash advance facility in respect of a securitization transaction is treated as a credit enhancement if it is provided in the absence of any other credit enhancement from an independent third party to cover losses arising from the non-performing underlying exposures of the transaction.

15. "Risk-weight"

(a) For the purposes of determining the risk-weight to be applied to a rated securitization exposure, the reporting institution should map the ***ECAI issue specific rating*** of the exposure to a scale of ***credit quality grades*** which –

(i) under the STC(S) approach, is represented by the numerals 1 to 5 for ***long-term ECAI issue specific ratings*** and by the numerals 1 to 4 for ***short-term ECAI issue specific ratings*** (see **Annex IIId-A**),

(ii) under the IRB(S) approach, is represented by the numerals 1 to 12 for long-term ECAI issue specific ratings and by the numerals 1 to 4 for short-term ECAI issue specific ratings (see **Annex IIId-C**).

(b) For the purposes of determining the risk-weight to be applied to an unrated securitization exposure, the reporting institution should apply the method set out in the specific instructions for Divisions II, III and V of the Form under sections C, D and F of these instructions respectively.

16. "Credit conversion factor"

For an off-balance sheet securitization exposure, a ***credit conversion factor*** (CCF) is applied to the principal amount after CRM to arrive at the ***credit equivalent amount*** of the exposure. The CCF is 100% for rated securitization exposures, and is also 100% for unrated securitization exposures except for certain types of liquidity facilities and investors' interest. The CCFs for liquidity facilities under the STC(S) approach and the IRB(S) approach are set out in Divisions IIB and IIIC respectively and the CCFs for investors' interest are set out in Division V.

17. "Risk-weighted amount"

For an on-balance sheet securitization exposure, the RWA is the product of the principal amount after CRM of the exposure and its relevant risk-weight. For an off-balance sheet securitization exposure, the RWA is the product of the credit equivalent amount (obtained by multiplying the principal amount after CRM of the exposure by an appropriate CCF) of the exposure and its relevant risk-weight. "Total Risk-weighted Amount" referred to in the Form means the sum of the RWA of on-balance sheet securitization exposures and off-balance sheet securitization exposures, except for (i) liquidity facilities and servicer cash advance facilities which fall within Divisions IIB and IIIC and (ii) investors' interest which falls within Division V, for which the term means the RWA of these off-balance sheet securitization exposures.

18. "Maturity mismatch"

For a reporting institution using the STC(S) approach or the IRB(S) approach, where there is a maturity mismatch between a securitization exposure that it holds and the ***credit protection*** covering the exposure, the value of credit protection should be adjusted in accordance with Section C.4 of the completion instructions for MA(BS)3(IIIb).

19. "Interest rate contracts and exchange rate contracts"

If a reporting institution enters into an ***interest rate contract*** or an ***exchange rate contract*** in a securitization transaction, the RWA of the securitization exposure arising from such contract should be -

(a) in the case of reporting institutions using the basic approach (BSC approach), determined in accordance with paragraphs 30 and 31 of the completion instructions of Part IIIa and reported in Division B of Form MA(BS)3(IIIa);

(b) in the case of reporting institutions using the standardized (credit risk) approach (STC approach), determined in accordance with paragraphs 31 and 32 of the completion instructions of Part IIIb and reported in Division B of Form MA(BS)3(IIIb);

(c) in the case of reporting institutions using the internal ratings-based approach (IRB approach), determined in accordance with the paragraphs applicable to ***OTC derivative transactions*** of the completion instructions for Part IIIc and reported in Form MA(BS)3(IIIc).

Section B: Specific Instructions for Division I of the Form

20. The following explains the relevant principles for reporting securitization exposures under Division I.

Division I **Summary of Risk-weighted Amount and Capital Deductions**

<u>Item</u> <u>Nature of item</u>

A **Risk-weighted amount**

Col.(1) This column captures the RWA of the total securitization exposures of the reporting institution and adjustments to the RWA due to maximum capital requirement.

Col.(2) The RWA of securitization exposures reported under each item in column (1) arising from securitization transactions in which the reporting institution is the originating institution has to be shown separately in the column of “Amount incurred as an originating institution”.

1(a) & 2(a) **Rated securitization exposures**

Item *1(a)* captures the total RWA of rated securitization exposures calculated under the STC(S) approach in column (10) of item *1(g)* in Division IIA.

Item *2(a)* captures the total RWA of rated securitization exposures calculated under the IRB(S) approach in column (10) of item *4* in Division IIIA.

1(b) & 2(b) **Unrated securitization exposures**

Item *1(b)* captures the sum of the total RWA of unrated securitization exposures calculated under the STC(S) approach in column (10) of item *2(c)* in Division IIA and that in column (11) of item *1* TOTAL in Division IIB.

Item *2(b)* captures the sum of the total RWA of unrated securitization exposures calculated under the IRB(S) approach in column (5) of item *1(j)* in Division IIIB and that in column (11) of item *1* TOTAL and item *3(iii)* in Division IIIC.

1(c) & 2(c) **Investors’ interest**

Report here the total RWA of investors’ interest calculated in column (9) of item *3* in Division V. Reporting institutions using the STC(S) approach or the IRB(S) approach to calculate the RWA of investors’ interest should report the amount in item *1(c) or 2(c)* respectively.

1(e) & 2(e) **Adjustments due to maximum capital requirement**

For each securitization transaction in which the reporting institution is the ***originator***, the institution has to determine the maximum capital requirement for all its securitization exposures under the transaction as follows:

- If the transaction is <u>not</u> subject to an early amortization provision, or the transaction has an early amortization provision but under section 244(3) or section 256(3) of the Rules the institution is not required to provide ***regulatory capital*** for the investors’ interest in respect of the early amortization provision, the maximum capital requirement will be the regulatory capital the institution would be required to provide for the underlying exposures of the transaction if the underlying exposures were not securitized.

- If the transaction is subject to an early amortization provision and the institution is required to provide regulatory capital for the investors' interest in respect of the early amortization provision, the transaction will not be subject to maximum capital requirement.

For a securitization transaction which is subject to maximum capital requirement, the institution is not required to provide regulatory capital for all securitization exposures held by the institution in the transaction in excess of the maximum capital requirement for that transaction.

When the regulatory capital calculated for the securitization exposures held by the institution in the transaction exceeds the maximum capital requirement, the amount of excess will be the amount of adjustment which should be made to the RWA, and where applicable, made to the amount of capital deduction. The amount of adjustment to the RWA should be reported in this item.

1(f) & 2(f) **Adjusted total**

The amount reported in item *1(e)* is subtracted from the amount reported in item *1(d)* to arrive at the adjusted total RWA of the securitization exposures reported in item *1(f)*. Similarly, item *2(f)* is the difference between items *2(d)* and *2(e)*.

2(g) **Adjusted total multiplied by scaling factor 1.06**

This amount is arrived at by multiplying the RWA reported in item *2(f)* by a scaling factor of 1.06 which is specified in section 224 of the Rules.

B **Capital deductions**

Col (1) This column captures the securitization exposures which are required to be deducted from a reporting institution's ***core capital*** and/or ***supplementary capital***. The amount of deduction is reported net of any specific provisions made against the exposures under both the STC(S) approach and the IRB(S) approach.

When adjustment to the amount of capital deduction due to maximum capital requirement is required, report here the adjusted amount of capital deduction.

Col.(2) The amount of capital deduction pertaining to securitization exposures reported under each item in column (1) arising from securitization transactions in which the reporting institution is the originating institution has to be shown separately in the column of "Amount incurred as an originating institution".

1 **Rated securitization exposures**

Report here the total amount of rated securitization exposures which are subject to capital deduction as calculated under the STC(S) approach or the IRB(S) approach.

For reporting institutions adopting the IRB(S) approach, the amount reported should normally be equal to the aggregate of the amounts reported in columns (2) and (6) of item *2(v)* in Division IIIA (the aggregate). Where there is any securitization exposure arising from any rated liquidity facility or servicer cash advance facility which is only available for general market disruption but with a credit quality grade of LTCQG12 or STCQG4, the amount reported can be greater than the aggregate as the total RWA of such rated liquidity facility or servicer cash advance facility will be reported in column (11) of item *3(i)* in Division IIIC.

2 **Unrated securitization exposures**

Report here the total amount of unrated securitization exposures which are subject to capital deduction as calculated under the STC(S) approach or the IRB(S) approach.

For reporting institutions adopting the IRB(S) approach, the amount reported should normally be equal to the aggregate of the amounts reported in columns (2) and (4) of item *1(i)* in Division IIIB (the aggregate). Where there is any securitization exposure arising from any unrated liquidity facility or servicer cash advance facility which is subject to the fallback option or only available for general market disruption, the amount reported will be greater than the aggregate as the total RWA of such unrated liquidity facility or servicer cash advance facility will be reported in column (11) of item *1(ix)* or *3(ii)* in Division IIIC.

3 **Credit-enhancing interest-only strips (net of gain-on-sale)**

Included in item *3* is the amount of ***credit-enhancing interest-only strips*** less the amount of ***gain-on-sale*** reported in item *4*. As this item is only applicable to originating institutions, the amount reported in columns (1) and (2) of this item should be the same.

4 **Gain-on-sale**

As this item is only applicable to originating institutions, the amount reported in columns (1) and (2) of this item should be the same.

5 **Other exposures as specified by the Monetary Authority**

This item captures any other securitization exposures specified by the MA in a notice in writing given to the reporting institution under section 236(1)(e) under the STC(S) approach or section 251(1)(f) under the IRB(S) approach.

6 **Total**

Included in item *6(a)* are securitization exposures (mainly gain-on-sale) which have to be fully deducted from the core capital of the reporting institution, and included in item *6(b)* are those which have to be deducted 50% from core capital and 50% from supplementary capital of the reporting institution.

<u>Section C: Specific Instructions for STC(S) Approach</u>

C.1 Determination of Risk-weights and Credit Conversion Factors

21. Securitization exposures have to be divided into those with ECAI issue specific ratings and those without.

    (a) Subject to (b), rated securitization exposures should be reported in item *1* of Division IIA of the Form.

    (b) If credit protection is provided directly to the SPE of a securitization transaction by a ***credit protection provider*** which does not fall within section 98 or 99 of the Rules, a rated securitization exposure under the transaction covered by the credit protection should be treated as unrated.

    (c) If credit protection is not obtained by the SPE but is applied to a rated securitization exposure held by the reporting institution, the institution should treat the exposure as unrated and use the CRM treatment stated in Section C.2 below to take into account the effect of the credit protection.

    (d) Unrated securitization exposures should be further divided into those that are subject to capital deduction and those that are not. The former should be reported in item *B* of Division I while the latter should be reported in item *2* of Division IIA of the Form.

    (e) Unrated securitization exposures in the form of liquidity facilities or servicer cash advance facilities which satisfy the criteria set out in section 240(1) (or section 240(6) in the case of servicer cash advance facilities) of the Rules should be reported in Division IIB instead of Division IIA of the Form.

22. The risk-weight of a rated securitization exposure is determined based on the credit assessment rating assigned to the exposure by an ***external credit assessment institution (ECAI)***. **<u>Annex IIId-A</u>** sets out how different sets of notations used by different ECAIs are mapped to the credit quality grades.

23. There are a number of general principles that reporting institutions should follow for the selection and application of ECAI issue specific ratings for risk-weighting securitization exposures. These principles are incorporated in **<u>Annex IIId-B.</u>**

24. The CCFs for off-balance sheet securitization exposures are set out in the Form.

25. The following explains how securitization exposures under each item are risk-weighted and, where applicable, the relevant principles for reporting exposures under each item.

Division IIA Securitization Exposures under STC(S) Approach (excluding Exposures reported in Divisions IIB & V)

Item — Nature of item

1(a) to 1(f) **Rated securitization exposures**

Included in item *1* are securitization exposures with ECAI issue specific ratings (i.e. rated) which are not subject to capital deduction, with the exception of the following which should be reported in Division IIB item *2* and Division V of this Form –

(a) rated eligible liquidity facilities and servicer cash advance facilities that are subject to a CCF of 0%; and

(b) exposures arising from investors' interest.

The ECAI issue specific rating of a securitization exposure should be used to determine the risk-weight of, or whether deduction is to be applied to, the exposure based on Table 1 if it is a long-term ECAI issue specific rating, or based on Table 2 if it is a short-term ECAI issue specific rating.

Table 1

Long-Term Credit Quality Grade (LTCQG)	1	2	3	4	5
Risk-weight / deduction (originating institutions)	20%	50%	100%	deduction	deduction
Risk-weight / deduction (investing institutions)	20%	50%	100%	350%	deduction

Table 2

Short-Term Credit Quality Grade (STCQG)	1	2	3	4
Risk-weight / deduction (both originating and investing institutions)	20%	50%	100%	deduction

If the reporting institution is an ***investing institution*** in respect of a securitization exposure of which the ECAI issue specific rating maps to a LTCQG of 5 or a STCQG of 4, as the case may be, the principal amount (after deduction of specific provisions) of the exposure should be subject to capital deduction and reported in item *B.1* of Division I.

If the reporting institution is an originating institution in respect of a securitization exposure of which the issue specific rating maps to a LTCQG of 4 or 5, or a STCQG of 4, as the case may be, the principal amount (after deduction of specific provisions) of the exposure should be subject to capital deduction and reported in item *B.1* of Division I.

2 **Unrated securitization exposures**

Included in item *2* are securitization exposures without ECAI issue specific ratings (i.e. unrated) which are not subject to capital deduction by virtue of the fact that they are -

- most senior securitization exposures;
- drawn portion of eligible liquidity facilities or eligible cash advance facilities; or
- exposures in a ***second loss tranche*** or better in ***asset-backed commercial paper (ABCP) programmes,***

Other unrated securitization exposures should be reported as follows:

- The undrawn portion of unrated liquidity facilities and unrated servicer cash advance facilities which is not subject to capital deduction should be reported in Division IIB.

- Investors' interest in securitization transactions which are subject to early amortization provision, where the reporting institution is the originating institution of the transactions, should be reported in Division V.

The principal amount (after deduction of specific provisions) of unrated securitization exposures, other than the categories mentioned above, should be subject to capital deduction and reported in item *B.2* of Division I.

2(a)(i) to (vi) **Most senior securitization exposures / drawn portion of eligible liquidity or servicer cash advance facilities**

Most senior securitization exposures

If the reporting institution knows the current composition of the pool of underlying exposures of a securitization transaction, an unrated securitization exposure which is the most senior in that transaction can be allocated a risk-weight equal to the ***weighted average risk-weight*** of the underlying exposures. The risk-weights of the underlying exposures are determined according to the approach (i.e. BSC approach or STC approach) used by the reporting institution to calculate the credit risk for the class of exposures into which the underlying exposures would fall.

When determining whether an exposure is the most senior, the reporting institution should make reference to section 238 of the Rules.

Drawn portion of eligible liquidity or servicer cash advance facilities

The drawn portion of an unrated eligible liquidity or servicer cash advance facility should be reported under this item. The risk-weight to be assigned to the drawn portion is the highest risk-weight which would be assigned to any of the underlying exposures covered by the facility under the approach (i.e. BSC approach or STC approach) used by the reporting institution to calculate its credit risk for the class of exposures into which the underlying exposures would fall.

2(b)(i) to (vii) **Exposures in a second loss position or better in ABCP programmes**

For securitization exposures which satisfy the criteria set out in section 239 of the Rules, the risk-weight to be allocated to the exposures should be the greater of -

- 100%; or
- the highest risk-weight which would be assigned to any of the underlying exposures under the approach (i.e. BSC approach or STC approach) used by the reporting institution to calculate the credit risk for the class of exposures into which the underlying exposures would fall.

Division IIB Eligible Liquidity Facilities and Eligible Servicer Cash Advance Facilities under STC(S) Approach

1(i) to (ix) **Eligible liquidity facilities and eligible servicer cash advance facilities that are unrated**

Included in these sub-items is the undrawn portion of liquidity facilities and servicer cash advance facilities which satisfy the criteria set out in section 240(1) (or section 240(6) in the case of servicer cash advance facilities) of the Rules and do not have ECAI issue specific ratings. The drawn portions of these facilities should be reported in item *2(a)* of Division IIA.

Eligible liquidity facilities and eligible servicer cash advance facilities should be divided into those with an original maturity of not more than one year and those with an original maturity of more than one year as these carry different CCFs.

The risk-weight to be assigned to the undrawn portion of an eligible liquidity facility or an eligible servicer cash advance facility is the highest risk-weight which would be assigned to any of the underlying exposures covered by the facility under the approach (i.e. BSC approach or STC approach) used by the reporting institution to calculate its credit risk for the class of exposures into which the underlying exposures would fall.

Both the drawn and undrawn portions of eligible liquidity facilities and eligible servicer cash advance facilities with ECAI issue specific ratings should be reported in item *1* of Division IIA with risk-weights determined according to the ECAI issue specific ratings assigned to the facilities.

2(i) & (ii) **Eligible liquidity facilities and eligible servicer cash advance facilities that are subject to 0% CCF**

Included in these sub-items are the undrawn portion of the liquidity facilities and servicer cash advance facilities which satisfy the criteria set out in section 240(3) or (7) of the Rules.

26. Overlapping facilities

If a reporting institution provides overlapping facilities as defined in section 241 of the Rules to a securitization transaction and the facilities are subject to different CCFs, the CCF applicable to the undrawn portion of the overlapping portion will be the highest CCF among those different CCFs. If the overlapping facilities are provided by different reporting institutions, each institution should provide regulatory capital for the maximum amount of the facility provided by it.

C.2 Calculation and Reporting of Risk-weighted Amount

27. For each securitization exposure, the RWA of the exposure is calculated by-

(a) in the case of an on-balance sheet securitization exposure, multiplying its principal amount after CRM reported in the Form by an appropriate risk-weight determined based on the instructions set out in Section C.1 above.

(b) in the case of an off-balance sheet securitization exposure, multiplying its credit equivalent amount (obtained by multiplying the principal amount after CRM of the exposure reported in the Form by an appropriate CCF) by an appropriate risk-weight determined based on the instructions set out in Section C.1 above.

28. The reporting arrangement for securitization exposures covered by CRM techniques depends on the types of techniques used:

(a) CRM treatment applicable to reporting institutions using the STC approach

(i) **<u>CRM treatment by substitution of risk-weights</u>**, which applies to the use of collateral under the simple approach[2], and the use of guarantees and credit derivatives.

(A) Firstly, identify the item to which the exposure belongs based on the instructions set out in Section C.1, then report the whole principal amount (after deduction of specific provisions) of the exposure in the column of "Principal Amount" of that item and in the row with the risk-weight applicable to that exposure.

(B) Secondly, divide the reported principal amount of the exposure into two portions: the portion covered by credit protection and the uncovered portion.

(I) For <u>guarantees and credit derivatives</u>, the value of credit protection is determined in accordance with paragraph 26(a)(ii)(A) of the completion instructions for Part IIIb (STC approach).

(II) For <u>collateral</u>, the value of credit protection is determined in accordance with paragraph 26(a)(ii)(B) of the completion instructions for Part IIIb.

(C) Thirdly, report the amount of the covered portion under the item to which the exposure belongs in the column of "Principal Amount after CRM" and in the row with the risk-weight applicable to the credit protection. The risk-weight applicable to the credit protection is determined in accordance with paragraph 26(a)(iii) of the completion instructions for Part IIIb.

(I) In the case of an on-balance sheet securitization exposure, the RWA of the covered portion is calculated by multiplying the amount of the covered portion by the risk-weight attributable to the credit protection.

(II) In the case of an off-balance sheet securitization exposure, the RWA of the covered portion is calculated by multiplying the credit equivalent amount of the covered portion (obtained by multiplying the amount of the covered portion by the CCF applicable to the exposure) by the risk-weight attributable to the credit protection.

(D) Lastly, report the amount of the uncovered portion under the item to which the exposure belongs, in the column of "Principal Amount after CRM" and in the row with the risk-weight applicable to the exposure.

The RWA of the uncovered portion is then calculated by –

[2] For ***past due exposures*** secured by collateral, the reporting institution should only use the simple approach to CRM treatment.

(I) in the case of an on-balance sheet securitization exposure, multiplying the amount of the uncovered portion by the risk-weight attributable to the exposure.

(II) in the case of an off-balance sheet securitization exposure, multiplying the credit equivalent amount of the uncovered portion (obtained by multiplying the amount of the uncovered portion by the CCF applicable to the exposure) by the risk-weight attributable to the exposure.

(ii) **CRM treatment by reduction of principal amount of an exposure**, which applies to the comprehensive approach for collateral and on-balance sheet netting:

(A) Comprehensive approach for collateral

(I) Firstly, report the whole principal amount (after deduction of specific provisions) of a securitization exposure in the column of "Principal Amount" under the item to which the exposure belongs, in the row with the risk-weight applicable to that exposure.

(II) Secondly, subtract the value of collateral from the reported principal amount of the exposure with the application of ***haircuts*** in accordance with paragraph 26(b)(i)(B) or 30(b)(ii) of the completion instructions for Part IIIb as the case requires. Report the net amount (i.e. the credit protection uncovered portion) in the column of "Principal Amount after CRM" under the same item to which the exposure belongs, and in the row with the same risk-weight applicable to that exposure.

(III) Thirdly, report the RWA calculated by-

- in the case of an on-balance sheet securitization exposure, multiplying the amount of the uncovered portion by the risk-weight applicable to the exposure;
- in the case of an off-balance sheet securitization exposure, multiplying the credit equivalent amount of the uncovered portion (obtained by multiplying the amount of the uncovered portion by the CCF applicable to the exposure) by the risk-weight applicable to the exposure.

(B) On-balance sheet netting

(I) Firstly, report the whole principal amount (after deduction of specific provisions) of an on-balance sheet securitization exposure in the column of "Principal Amount" under the item to which the exposure belongs, in the row with the risk-weight applicable to that exposure.

(II) Secondly, determine the principal amount after CRM in accordance with paragraph 26(c)(ii) of the completion instructions for Part IIIb and report the amount in the column of "Principal Amount after CRM" under the same item to which the exposure belongs, and in the row with the same risk-weight of the exposure.

(III) Thirdly, report the RWA calculated by multiplying the principal amount after CRM reported in the Form by the risk-weight of the exposure.

(C) Maturity mismatches

Where there is a maturity mismatch between a securitization exposure and the credit protection covering the exposure, the value of credit protection should be adjusted in accordance with Section C.4 of the completion instructions for Part IIIb.

(b) CRM treatment applicable to reporting institutions using BSC approach

(i) **CRM treatment by substitution of risk-weights**, which applies to the use of collateral, guarantees and credit derivatives.

The same reporting arrangement as set out in paragraph (a)(i) above applies except that the value of the credit protection and risk-weight applicable to the credit protection should be determined in accordance with paragraph 25(a) of the completion instructions for Part IIIa.

(ii) **On-balance sheet netting**

The same reporting arrangement as set out in paragraph (a)(ii)(B) above applies except that the principal amount after CRM should be determined in accordance with paragraph 25(b) of the completion instructions for Part IIIa.

29. Multiple credit risk mitigation

Where a securitization exposure is covered by two or more types of CRM techniques, the covered portions should be determined in accordance with Section C.3 of the completion instructions for Part IIIb for reporting institutions using the STC approach and Section C.3 of the completion instructions for Part IIIa for reporting institutions using the BSC approach.

Section D: Specific Instructions for IRB(S) Approach

Division IIIA Rated Securitization Exposures calculated by Ratings-based Method under IRB(S) Approach (excluding Exposures reported in Divisions IIIC & V)

30. Under the IRB(S) approach, a securitization exposure is rated if it has an ECAI issue specific rating or, in the absence of an ECAI issue specific rating, an ***inferred rating***

attributed by the reporting institution. The conditions for the use of inferred ratings are set out in section (B) III in **Annex IIId-B**. Details of the risk-weighting requirements under the ratings-based method are set out in Divisions 4 and 5 of Part 7 of the Rules.

Calculation of RWA

31. The RWA of a rated securitization exposure is calculated by applying the risk-weight applicable to the exposure by reference to its ECAI issue specific rating or the inferred rating attributed by the reporting institution as follows:

(a) for an on-balance sheet securitization exposure, the RWA is the product of the principal amount of the exposure after CRM and the applicable risk-weight specified in **Annex IIId-C**; and

(b) for an off-balance sheet securitization exposure, a CCF of 100% is applied to the principal amount of the exposure after CRM to determine the credit equivalent amount. The RWA is the product of the credit equivalent amount of the exposure after CRM and the applicable risk-weight.

32. Off-balance sheet securitization exposures in this Division include rated liquidity facilities and servicer cash advance facilities but exclude:

(a) rated eligible liquidity facilities and servicer cash advance facilities that are unconditionally cancellable without prior notice;

(b) rated eligible liquidity facilities and servicer cash advance facilities which are only available for general market disruption; and

(c) exposures arising from investors' interest.

Determination of risk-weight

33. The ECAI issue specific rating of a securitization exposure is used to determine the risk-weight of, or whether deduction is to be applied to, the exposure. This can be achieved by mapping the ECAI issue specific rating of the exposure to a scale of credit quality grades. **Annex IIId-C** sets out how different sets of notations used by different ECAIs are mapped to the credit quality grades under the ratings-based method and the relevant risk-weights of each credit quality grade.

34. The risk-weight applicable to a securitization exposure under each credit quality grade depends on:

(a) whether the exposure is **senior;**

(b) whether the exposure is **granular** (i.e. the effective number of underlying exposures is not less than 6); and

(c) whether the credit assessment rating (external or inferred) represents a long-term or a short-term credit rating.

35. A ***securitization position*** is treated as **senior** if it is effectively backed or secured by a first legal claim on the entire amount outstanding in respect of the underlying exposures in the securitization transaction concerned. Any interest rate contract or exchange rate contract for hedging the respective interest rate risk or foreign exchange risk in the transaction, or fees or other similar payments due under the transaction, will not be taken into account for the purpose of considering whether a securitization position is senior.

36. While a senior securitization position generally includes only the most senior position within a securitization transaction, there may be cases where some other claims that may be more senior in the waterfall (e.g. a swap claim) in a technical sense that may be disregarded for the purpose of determining whether the positions are senior. Examples include:

(a) in a synthetic securitization transaction, the "super-senior" tranche will be treated as a senior position, provided that all of the conditions for inferring a rating from a lower tranche are satisfied;

(b) in a traditional securitization transaction where all tranches above the first-loss position are rated, the most highly rated position will be treated as a senior position. However, where there are several tranches that share the same rating, only the most senior one in the waterfall will be treated as senior; and

(c) a liquidity facility supporting an ABCP programme (i.e. the pool-specific liquidity facility) will not normally be the most senior position within the programme; the commercial paper which benefits from the liquidity support (i.e. the programme-wide liquidity facility) to achieve the desired external rating on the paper will be the most senior position.

37. A securitization position is treated as **granular** if the underlying exposures of the securitization position have an effective number of not less than 6. Otherwise, it is treated as non-granular.

38. The effective number of underlying exposures is calculated by treating multiple exposures to one ***obligor*** as one exposure and using the following formula:

$$N = \frac{\left(\sum_i \mathrm{EAD}_i\right)^2}{\sum_i \mathrm{EAD}_i^{\,2}}$$

where -

N	=	effective number of underlying exposures (in the case of a re-securitization, the effective number of securitization exposures which have been securitized); and
EAD_i	=	the ***EAD*** associated with the i^{th} obligor in the pool of underlying exposures.

39. If the amount of the largest exposure (C_1) in the pool of underlying exposures as a percentage of the total amount of the pool is available, N can be computed as $1/C_1$.

Credit risk mitigation

40. **Recognized financial collateral**

If a rated securitization exposure is **covered by *recognized financial collateral***, the reporting institution should:

for on-balance sheet exposures -

(a) measure the CRM effect by using Formula 19 set out in section 160 of the Rules to adjust the EAD of the rated securitization exposure (Formula 19 basically follows Formulae 2 and 3 under the comprehensive approach set out in sections 87 and 88 of the Rules respectively, except that the EAD of the exposure is measured gross of specific provisions in Formula 19 whereas the principal amount of the exposure is measured net of specific provisions in Formulae 2 and 3.);

(b) report the EAD of the exposure before adjusting the CRM effect in the column of "Principal Amount" under "On-balance Sheet Exposures" and in the row with the risk-weight applicable to the exposure and the adjusted EAD calculated in paragraph (a) above in the column of "Principal Amount after CRM" under "On-balance Sheet Exposures" and in the same row; and

for off-balance sheet exposures -

(c) apply the same steps mentioned in paragraphs (a) and (b) above except that the EAD and adjusted EAD of the exposure should be reported in the columns of "Principal Amount" and "Principal Amount after CRM" respectively under "Off-balance Sheet Exposures".

41. **Recognized guarantee** or **recognized credit derivative contract**

If a rated securitization exposure is **covered by a *recognized guarantee* or a *recognized credit derivative contract***, the reporting institution should:

for on-balance sheet exposures -

(a) split the EAD of the rated securitization exposure into covered portion and uncovered portion, if the exposure is partially covered by a recognized guarantee or a recognized credit derivative contract;

(b) measure the CRM effect of the covered portion by using the substitution framework as set out in section 216 of the Rules. For this purpose, the risk-weight applicable to the credit protection provider is determined under the IRB approach in section 216(3)(a) as equivalent to that for an unsecured loan to the credit protection provider;

(c) report the EAD of the exposure before adjusting the CRM effect in the column of "Principal Amount" and the EAD of the uncovered portion in the column of "Principal Amount after CRM" under "On-balance Sheet Exposures" in the same row with the risk-weight applicable to the exposure. The EAD of the covered portion is reported in the column of "Principal Amount after CRM" under "On-balance Sheet Exposures" in the row with the risk-weight of the credit protection provider or in item *3* if the risk-weight of the credit protection provider is not listed in the various sub-items of items *1* and *2*; and

for off-balance sheet exposures -

(d) apply the same steps mentioned in paragraphs (a) to (c) above except that the EAD and adjusted EAD of the exposure should be reported in the columns of "Principal Amount" and "Principal Amount after CRM" respectively under "Off-balance Sheet Exposures".

42. The following explains the relevant principles for reporting rated securitization exposures under the items in Division IIIA:

Item	Nature of item
1	**Securitization exposures rated with investment grade**
1(a) to (c)	A securitization exposure rated with ***investment grade*** means: (i) if the exposure has a long-term credit assessment rating, the exposure is mapped to a long-term credit quality grade (LTCQG) of 1, 2, 3, 4, 5, 6 or 7 in accordance with **Table A** of **Annex IIId-C**; and (ii) if the exposure has a short-term credit assessment rating, the exposure is mapped to a short-term credit quality grade (STCQG) of 1, 2 or 3 in accordance with **Table B** of **Annex IIId-C**.
1(a)(i) to (viii)	**Senior positions backed by granular pools** These sub-items capture securitization positions which are senior and the underlying exposures of which are granular.
1(b)(i) to (viii)	**Mezzanine positions backed by granular pools** These sub-items capture securitization positions which are not senior but the underlying exposures of which are granular.
1(c)(i) to (viii)	**Positions backed by non-granular pools** These sub-items capture securitization positions the underlying exposures of which are non-granular, regardless of whether the positions are senior or not.

2 **Securitization exposures rated below investment grade**

2(i) to (v) A securitization exposure rated below investment grade means:

(i) if the exposure has a long-term credit assessment rating, the exposure is mapped to a LTCQG of 8, 9, 10, 11 or 12 (and the exposure is subject to capital deduction if its LTCQG is 12) in accordance with **Table A** of **<u>Annex IIId-C</u>**; and

(ii) if the exposure has a short-term credit assessment rating, the exposure is mapped to a STCQG of 4 which is subject to capital deduction in accordance with **Table B** of **<u>Annex IIId-C</u>**.

3 **Securitization exposures covered by CRM and subject to risk-weights other than those listed above**

This item captures securitization exposures covered by CRM where the risk-weight of the covered portion is not subject to the risk-weights listed under the various sub-items of items *1* and *2*.

Division IIIB Unrated Securitization Exposures calculated by Supervisory Formula Method under IRB(S) Approach (excluding Exposures reported in Divisions IIIC & V)

43. Under the IRB(S) approach, a securitization exposure is unrated if it does not have an ECAI issue specific rating or an inferred rating. Subject to the MA's prior approval, the capital charge of the unrated securitization exposures is calculated through the use of the supervisory formula method. Details of the risk-weighting requirements under the supervisory formula method are set out in Divisions 4 and 6 of Part 7 of the Rules.

<u>Calculation of RWA</u>

44. For on-balance sheet securitization exposures, the RWA is arrived at by multiplying the capital charge factor calculated by the supervisory formula set out in paragraph 46 below by (i) 12.5 and (ii) EAD of the underlying exposures. For off-balance sheet securitization exposures, the RWA is arrived at by multiplying the capital charge factor calculated by the supervisory formula below by (i) 12.5; (ii) a CCF of 100% and (iii) EAD of the underlying exposures. Given that the CCF is 100%, the principal amount of the exposure is equal to the credit equivalent amount of the exposure. Illustrative examples on calculating the CRM effect under the supervisory formula method are provided in **<u>Annex IIId-F</u>**.

45. Off-balance sheet securitization exposures in this Division include the undrawn portion of unrated eligible liquidity facilities and servicer cash advance facilities for which the supervisory formula method is applicable but exclude:

(a) the undrawn portion of unrated eligible liquidity facilities and servicer cash advance facilities for which the fall-back option is used;

(b) the undrawn portion of unrated eligible liquidity facilities and servicer cash advance facilities that are unconditionally cancellable without prior notice;

(c) the undrawn portion of unrated eligible liquidity facilities and servicer cash advance facilities which are only available for general market disruption; and

(d) exposures arising from investors' interest.

<u>Use of supervisory formula</u>

46. The supervisory formula is:

$$S[L] = \begin{cases} L & \text{when } L \leq K_{IRB} \\ K_{IRB} + K[L] - K[K_{IRB}] + (d \cdot K_{IRB} / \omega(1 - e^{\omega(K_{IRB} - L)/K_{IRB}}) & \text{when } K_{IRB} < L \end{cases}$$

where –

$$h = (1 - K_{IRB} / LGD)^{N};$$
$$c = K_{IRB} / (1 - h);$$
$$v = \frac{(LGD - K_{IRB})K_{IRB} + 0.25(1 - LGD)K_{IRB}}{N};$$
$$f = \left(\frac{v + K_{IRB}^{2}}{1 - h} - c^{2} \right) + \frac{(1 - K_{IRB})K_{IRB} - v}{(1 - h)\tau};$$
$$g = \frac{(1 - c)c}{f} - 1;$$
$$a = g \cdot c;$$
$$b = g \cdot (1 - c);$$
$$d = 1 - (1 - h) \cdot (1 - Beta[K_{IRB}; a, b]);$$
$$K[L] = (1 - h) \cdot ((1 - Beta[L; a, b])L + Beta[L; a + 1, b]c);$$

$\tau = 1000$;
$\omega = 20$; and
Beta [L; a, b] = cumulative beta distribution with parameters a and b evaluated at L.

47. The capital charge factor calculated under the supervisory formula for a tranche in a securitization transaction depends on five inputs:

(a) the tranche's capital charge factor had the underlying exposures not been securitized (K_{IRB});

(b) the tranche's credit enhancement level (L);

(c) the tranche's thickness (T);

(d) the pool's effective number of the underlying exposures (N); and

(e) the pool's exposure-weighted average LGD.

48. The capital charge for any tranche in a securitization transaction is calculated by multiplying:

(a) the EAD of the underlying exposures in the transaction; by

(b) the greater of:

(i) the product of 0.0056 multiplied by T; or

(ii) the excess of S[L+T] over S[L]

where

(iii) the EAD refers to the sum of principal amount of on-balance sheet underlying exposures and the credit equivalent amount of off-balance sheet underlying exposures; and

(iv) function S[.] is the supervisory formula.

49. If only a proportional interest in a tranche is held, the capital charge for that tranche equals the prorated share of the capital charge for the entire tranche.

K_{IRB}

50. **K_{IRB}** is the capital charge factor measured as the ratio, expressed in decimal form, of:

(a) the capital charge calculated under the use of the IRB approach for the pool of underlying exposures in a securitization transaction as if the pool of underlying exposures were held directly by the reporting institution; to

(b) the EAD of the underlying exposures (see paragraph 48(b)(iii)).

51. Where a reporting institution has made a specific provision or a partial write-off in respect of, or has a non-refundable purchase price discount on, an underlying exposure in the pool, items (a) and (b) defined in paragraph 50 are calculated using the gross amount of the exposure without the specific provision, partial write-off or non-refundable purchase price discount. If the underlying exposure is defaulted and subject to capital deduction, the amount of specific provision, partial write-off or non-refundable purchase price discount on the defaulted exposure can be used to reduce the amount of such capital deduction.

52. If there is an SPE in a securitization transaction, all the assets of the SPE that are related to the transaction are to be treated as exposures in the pool, including assets invested by the SPE in the form of a reserve account, such as a cash collateral account.

Credit enhancement level (L)

53. **L** of a given tranche in a securitization transaction is measured as the ratio, expressed in decimal form, of:

(a) the EAD of all securitization exposures subordinate to the tranche in question; to

(b) the EAD of the underlying exposures (see paragraph 48(b)(iii)).

54. L is determined before considering the effects of any tranche-specific credit enhancement, such as third-party guarantees that cover only a single tranche. Any gain-on-sale or credit enhancing interest-only strip in the securitization transaction realized or held by a reporting institution is excluded from the measurement of L.

55. If an interest rate contract or exchange rate contract entered into by a reporting institution for the purposes of a securitization exposure held by the institution is more junior than the tranche in question, the institution may measure the principal amount of the contract at its ***current exposure*** (i.e. without ***potential exposure***). If the current exposure of the instrument cannot be measured, the contract will be ignored in the calculation of L.

56. Reserve accounts funded by accumulated cash flows from the underlying exposures which are more junior than the tranche in question can be included in the calculation of L. Unfunded reserve accounts that are to be funded from future receipts from the underlying exposures are excluded from the calculation of L.

Thickness of exposure (T)

57. **T** of a given tranche in a securitization transaction is measured as the ratio, expressed in decimal form, of:

(a) the EAD of the tranche in question; to

(b) the EAD of the underlying exposures (see paragraph 48(b)(iii)).

58. The credit equivalent amount of a securitization exposure held by a reporting institution arising from an interest rate contract or exchange rate contract is measured as:

(a) the sum of the current exposure of the securitization exposure and potential exposure if the current exposure is not negative; or

(b) the potential exposure only if the current exposure is negative,

Effective number of underlying exposures (N)

59. The formula for determining the effective number of underlying exposures is provided in paragraph 38 above.

Exposure-weighted average LGD

60. The exposure-weighted average LGD is calculated as follows:

$$\frac{\sum_i LGD_i \cdot EAD_i}{\sum_i EAD_i}$$

where –

LGD_i = the average LGD associated with the i^{th} obligor in the pool of underlying exposures; and

EAD_i = the EAD associated with the i^{th} obligor in the pool of underlying exposures.

61. For a re-securitization, an LGD of 100% is applied to the underlying exposures.

62. If the underlying exposures in a securitization transaction are purchased receivables and the default risk and dilution risk for the purchased receivables are treated in an aggregate manner (e.g. a single reserve or over-collateralization is available to cover losses from either default risk or dilution risk), the LGD is determined as a weighted average of the LGD for default risk and a 100% LGD for dilution risk.

63. The weights of the LGD for default risk and the LGD for dilution risk are determined by reference to the proportion that the capital charge calculated for that default risk and the capital charge calculated for that dilution risk respectively bear to the aggregate capital charge calculated for default risk and dilution risk.

Simplified method for calculating N and exposure-weighted average LGD

64. The simplified method for calculating N is as follows:

$$N = \left(C_1 C_m + \left(\frac{C_m - C_1}{m - 1} \right) \max \{1 - m C_1 , 0\} \right)^{-1}$$

where –

C_1 = the share of largest exposure in the pool of underlying exposures;

C_m = the share of the pool of underlying exposures corresponding to the sum of the largest "m" exposures (for example, a 15% share corresponds to a value of 0.15) and the level of "m" is set by the reporting institution making the regulatory capital calculation;

65. If C_1 in the pool of underlying exposures is not more than 0.03, the exposure-weighted average LGD may be set at 0.50 and N may be calculated by using the formula in the above paragraph.

66. If only C_1 is known to the reporting institution and its share in the pool of underlying exposures is not more than 0.03, the exposure-weighted average LGD may be set at 0.50 and N may be calculated as $1/C_1$.

67. If the underlying exposures are retail exposures, the value for h and v in the supervisory formula can be zero.

Determination of risk-weight

68. The risk-weight of an unrated securitization exposure in this Division is measured as the greater of –

(a) 7%; or

(b) the effective risk-weight determined by multiplying 12.5 to the capital charge factor for the exposure calculated by the use of supervisory formula.

69. If the effective risk-weight is not less than 1,250%, the exposure should be deducted from the reporting institution's core capital and supplementary capital.

Credit risk mitigation

70. Illustrative examples on calculating the effect of CRM under supervisory formula method are provided in **Annex IIId-D**.

71. If an unrated securitization exposure is **covered by recognized financial collateral**, the reporting institution should:

for on-balance sheet exposures -

(a) measure the CRM effect by using Formula 19 of the Rules to adjust the EAD of the unrated securitization exposure;

(b) calculate the capital charge factor of the securitization exposure by the use of supervisory formula;

(c) determine the effective risk-weight applicable to such exposure by multiplying the capital charge factor calculated in paragraph (b) by 12.5;

(d) determine the RWA of such exposure by multiplying the effective risk-weight calculated in paragraph (c) by the adjusted EAD calculated in paragraph (a) above;

(e) report the EAD of the exposure before adjusting the CRM effect in the column of "Principal Amount" and the adjusted EAD calculated in paragraph (a) above in the column of "Principal Amount after CRM" under "On-balance Sheet Exposures" and in the same row with the range of effective risk-weights under which the effective risk-weight applicable to such exposure falls; and *for off-balance sheet exposures -*

(f) apply the same steps mentioned in paragraphs (a) to (e) above, except that the EAD and the adjusted EAD of the exposure should be reported in the columns of "Principal Amount" and "Principal Amount after CRM" respectively under "Off-balance Sheet Exposures".

72. If an unrated securitization exposure is **covered by a recognized guarantee or recognized credit derivative contract,** the reporting institution should:

for on-balance sheet exposures -

(a) split the EAD of the unrated securitization exposure into covered portion and uncovered portion, if the exposure is partially covered by the guarantee or credit derivative contract;

(b) measure the CRM effect of the covered portion by using the substitution framework as set out in section 216 of the Rules. For this purpose, multiply the risk-weight of the credit protection provider in accordance with section 216(3)(a) (which is equivalent to the risk-weight of an unsecured loan to the credit protection provider as determined under the IRB approach) to the EAD of the covered portion;

(c) calculate the RWA of the uncovered portion by multiplying the EAD of the uncovered portion by the risk-weight of the unrated exposure determined in paragraph 68;

(d) report the EAD of the exposure before adjusting the CRM effect in the column of "Principal Amount" and the EAD of the uncovered portion in the column of "Principal Amount after CRM" under "On-balance Sheet Exposures" and in the same row with the range of effective risk-weights under which the effective risk-weight applicable to the uncovered portion falls;

(e) report the EAD of the covered portion in the column of "Principal Amount after CRM" under "On-balance Sheet Exposures" and in the row with the range of effective risk-weights under which the risk-weight of the credit protection provider falls; and

for off-balance sheet exposures -

(f) apply the same steps mentioned in paragraphs (a) to (e) above, except that the EAD and the adjusted EAD of the exposure should be reported in the columns of "Principal Amount" and "Principal Amount after CRM" respectively under "Off-balance Sheet Exposures".

73. For CRM purposes, an SPE is not recognized as an eligible guarantor. Collateral provided by the SPE for the purpose of protecting the reporting institution which is the originating institution in the securitization transaction concerned against credit losses are, subject to the MA's prior consent, to be treated as recognized financial collateral for the purposes of the underlying exposures.

74. Reporting institutions may reduce the capital charge proportionally when the CRM covers first losses or losses on a proportional basis. For all other cases, reporting institutions should assume that the CRM covers the most senior portion of a securitization exposure (i.e. that the most junior portion of the securitization exposure is uncovered).

75. Where there is a ***valid bilateral netting agreement*** to off-set the credit risk of a securitization exposure held by a reporting institution, the institution may take into account the CRM effect of the ***recognized netting*** in calculating the EAD of the exposure in accordance with section 209 (except section 209(3)(b)) of the Rules.

Division IIIC Eligible Liquidity Facilities and Eligible Servicer Cash Advance Facilities under IRB(S) Approach

76. Eligible liquidity facilities and eligible servicer cash advance facilities are classified into two categories using the period of their original maturity as follows:

(a) with an original maturity of not more than one year; and
(b) with an original maturity of more than one year

77. Reporting institutions providing eligible liquidity facilities and eligible servicer cash advance facilities, if they have not been drawn, should calculate the RWA of these facilities by multiplying the credit equivalent amount of these facilities (being the product of the principal amount after CRM and the applicable CCF) by the applicable risk-weight under fallback option. Once they have been drawn, the drawn portion becomes an on-balance sheet exposure and therefore no CCF is applicable to the principal amount of the drawn portion for the purposes of calculating the RWA of these facilities.

78. If the reporting institution provides two or more facilities (overlapping facilities) as defined in section 253 of the Rules and the facilities are subject to different CCFs, the CCF applicable to the overlapping portion will be the highest CCF among those CCFs.

79. If the applicable risk-weight of a facility is not less than 1,250%, the credit equivalent amount of the facility should be deducted from the institution's core capital and supplementary capital. If the facility is rated, report the exposure in item *2(v)* of Division IIIA (or item *3(i)* of this Division if the facility is only for general market disruption) and item *B.1* of Division I. If the facility is unrated, report the exposure in item *1(i)* of Division IIIB under supervisory formula method or item *1(ix)* of this Division under fall-back option (or item *3(ii)* of this Division if the facility is only for general market disruption) and item *B.2* of Division I.

80. The following explains the relevant principles for reporting the undrawn portion of liquidity facilities and servicer cash advance facilities under the items in Division IIIC:

Item	Nature of item
1(i) to (ix)	**Eligible liquidity facilities and eligible servicer cash advance facilities under fallback option** With the prior consent of the MA, reporting institutions may use the **fallback option** to calculate the RWA of unrated liquidity facilities and servicer cash advance facilities provided by them if it is not practicable for them to calculate K_{IRB} for the purpose of applying the supervisory formula. The treatment of these facilities is set out in section 277(3) of the Rules. For reporting institutions using the fallback option to calculate the RWA of the drawn portion, they should report the drawn portion in Division IIIB under "On-balance Sheet Exposures" in the row with the range of effective risk-weights under which the risk-weight assigned under the fallback option falls. **Determination of CCF** The applicable CCF for eligible liquidity facilities and eligible servicer cash advance facilities i) with an original maturity of not more than one year is 50%; and ii) with an original maturity of more than one year is 100%. **Determination of risk-weight** The risk-weight to be assigned to an eligible liquidity facility or an eligible servicer cash advance facility is the highest risk-weight which would be assigned to any of the underlying exposures covered by the facility under the approach used by the reporting institution to calculate its credit risk for the class of exposures into which the underlying exposures fall.
2	For liquidity facilities and servicer cash advance facilities that are **unconditionally cancellable** without any prior notice, a **CCF** of 0% is applicable to such facilities.
3(i)	For **rated** facilities which are only available for **general market disruption** in item *3(i)*, the **risk-weight** to be allocated to the facilities is determined by reference to their ECAI issue specific ratings or the inferred rating attributed by the reporting institution in accordance with **Annex IIId-C.** A **CCF** of 100% is applicable to such facilities.
3(ii)	For **unrated** facilities which are only available for **general market disruption** in item *3(ii)*, the **risk-weight** to be allocated to the facilities is determined by using the supervisory formula method or failing which, by applying the highest risk-weight as determined in the fall-back option. A **CCF** of 20% is applicable to such facilities.

Section E: Memorandum Items on Liquidity Facilities and Servicer Cash Advance Facilities

Division IV Memorandum Items on Liquidity Facilities and Servicer Cash Advance Facilities under STC(S) Approach and IRB(S) Approach

81. Columns (1) and (2) of item *1* capture the principal amount (**not covered by CRM**) of liquidity facilities and servicer cash advance facilities (i.e. the uncovered portion) that are subject to capital deduction under the STC(S) approach and the IRB(S) approach respectively.

82. Columns (1) and (2) of item *2* capture the principal amount (**before CRM**) of liquidity facilities and servicer cash advance facilities (i.e. the principal amount before taking into account any CRM effect) that are extended to ABCP programmes under the STC(S) approach and the IRB(S) approach respectively.

Section F: Investors' Interest

Division V Investors' Interest for Securitization Exposures of Originating AIs subject to Early Amortization Provision under STC(S) Approach and IRB(S) Approach

83. If the underlying exposures in a securitization transaction which is subject to early amortization provision are ***revolving*** in nature, the early amortization treatment for the calculation of the RWA of investors' interest specified in section 245 (under STC(S) approach) or section 257 (under IRB(S) approach) of the Rules apply to the originating institution unless the conditions set out in section 244(3) or 256(3) of the respective approach are met.

84. An underlying exposure is considered to be revolving in nature if the borrower is permitted to vary the drawn amount and repayments within an agreed limit under a credit line. Typical examples of such exposures are credit card receivables and corporate loan commitments.

85. Investors' interest consists of the sum of –

(a) the investors' share of the principal amount of the ***drawn balances*** of the underlying exposures; and

(b) the investors' share of the credit equivalent amount of the ***undrawn balances*** of the underlying exposures as determined by allocating the undrawn balances of the underlying exposures between the originating institution and the investors according to the proportion of their respective share of the drawn balances of the underlying exposures.

86. For the purpose of determining the investors' interest, the credit equivalent amount of an undrawn balance of an underlying exposure is calculated by multiplying the principal amount of the undrawn balance by the applicable CCF which is specified in:

(a) sections 71 and 73 of the Rules for reporting institutions using the STC approach;

(b) sections 118 and 120 of the Rules for reporting institutions using the BSC approach;

(c) sections 163 and 166 of the Rules for reporting institutions using the foundation IRB approach; or

(d) sections 164 and 166 of the Rules for corporate exposures for reporting institutions using the advanced IRB approach; and sections 180 and 182 of the Rules for retail exposures for reporting institutions using the retail IRB approach.

Calculation of RWA

87. For originating institutions using the **STC(S) approach**, the **RWA for the investors' interest** is calculated by multiplying together:

(a) the **investors' interest** as determined in paragraph 85;
(b) the appropriate **CCF** as described in paragraphs 90 and 91; and
(c) the **risk-weight** appropriate for the underlying exposures, as if the exposures had not been securitized.

88. For originating institutions using the **IRB(S) approach**, the **RWA for the investors' interest** is calculated by multiplying together:

(a) the **investors' interest** as determined in paragraph 85;
(b) the appropriate **CCF** as described in paragraphs 90 and 91;
(c) the $\mathbf{K_{IRB}}$ of the underlying exposures as described in paragraph 50; and
(d) 12.5.

89. For the purpose of calculating the RWA of investors' interest, investors' interest in a securitization transaction which is subject to an early amortization provision are divided into two main categories, they are (i) **controlled** early amortization and (ii) **non-controlled** early amortization. They are described in paragraph 93.

<u>Determination of CCF</u>

90. For the purpose of determining the applicable CCFs to investors' interest, the underlying exposures are divided into (i) ***committed credit lines*** and (ii) ***uncommitted credit lines***. Uncommitted credit lines are further divided into (i) retail credit lines and (ii) non-retail credit lines. An uncommitted credit line means a credit line provided by the reporting institution to a borrower which is unconditionally cancellable by the institution without prior notice to the borrower. A committed credit line means a credit line which is not an uncommitted credit line.

91. For securitization exposures subject to controlled early amortization provision, a CCF of 90% is applied to committed credit lines and non-retail lines. For securitization exposures subject to non-controlled early amortization provision, a CCF of 100% is applied to committed credit lines and non-retail lines. For uncommitted retail credit lines, the applicable CCF depends on the 3-month average ***excess spread*** level which

is expressed as a percentage of the trapping point. The applicable CCFs for securitization exposures subject to controlled early amortization provision and for those subject to non-controlled early amortization provision are set out in **<u>Annexes IIId-E & F</u>** respectively**.**

92. If a securitization transaction does not require excess spread to be trapped, the trapping point is deemed to be 4.5% of the principal amount of the underlying exposures.

93. The following explains the relevant principles for reporting investors' interest in Division V:

<u>Item</u>	<u>Nature of item</u>
Col. (1) to (4)	**Controlled early amortization**

A **controlled** early amortization provision must meet all of the following conditions:

(a) the originating institution must have a plan to ensure that it has sufficient capital and liquidity available in the event of an early amortization;

(b) throughout the duration of the transaction, including the early amortization period, the same pro-rata sharing between the originating institution and investors of payments of interest, principal, expenses, losses and recoveries is applied, based on the relative share of the originating institution and the investors in the drawn balances of the underlying exposures outstanding at the beginning of each month;

(c) the early amortization period set by the originating institution is sufficient for at least 90% of the total debt outstanding under the underlying exposures at the beginning of that period, to have been repaid, or recognized as in default, at the end of that period; and

(d) the speed of repayment should not be more rapid than would be allowed by straight-line amortization over the period referred to in paragraph (c).

Col. (5) to (8) **Non- controlled early amortization**

An early amortization provision that does not satisfy the conditions for a controlled early amortization provision is regarded as a **non-controlled** early amortization provision.

Hong Kong Monetary Authority
March 2007

<u>Annex IIId-A</u>

MAPPING OF ECAI ISSUE SPECIFIC RATINGS INTO CREDIT QUALITY GRADES UNDER STC(S) APPROACH

LONG-TERM CREDIT QUALITY GRADE (LTCQG)

LTCQG	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	AAA	Aaa	AAA	AAA
	AA+	Aa1	AA+	AA+
	AA	Aa2	AA	AA
	AA-	Aa3	AA-	AA-
2	A+	A1	A+	A+
	A	A2	A	A
	A-	A3	A-	A-
3	BBB+	Baa1	BBB+	BBB+
	BBB	Baa2	BBB	BBB
	BBB-	Baa3	BBB-	BBB-
4	BB+	Ba1	BB+	BB+
	BB	Ba2	BB	BB
	BB-	Ba3	BB-	BB-
5	B+	B1	B+	B+
	B	B2	B	B
	B-	B3	B-	B-
	CCC+	Caa1	CCC+	CCC+
	CCC	Caa2	CCC	CCC
	CCC-	Caa3	CCC-	CCC-
	CC	Ca	CC	CC
	C	C	C	C
	D		D	

SHORT-TERM CREDIT QUALITY GRADE (STCQG)

STCQG	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	A-1+ A-1	P-1	F1+ F1	a-1+ a-1
2	A-2	P-2	F2	a-2
3	A-3	P-3	F3	a-3
4	B B-1 B-2 B-3 C D	NP	B C D	b c

Annex IIId-B

Application of External Credit Assessments for Risk-weighting Securitization Exposures

(A) Nomination of ECAIs

1. The reporting institution may nominate one or more ECAI(s) the credit assessment ratings of which will be used for the purposes of deriving risk-weights for securitization exposures.

2. The ECAI(s) nominated should (taken collectively if more than one ECAI is nominated) issue a range of credit assessment ratings which provides a reasonable coverage to the counterparties and the geographical regions in relation to the securitization exposures.

3. The reporting institution should use the ratings of the nominated ECAI(s) within a given type of securitization exposures consistently.

4. The reporting institution should not, in respect of the same securitization transaction, use ECAI issue specific ratings issued by an ECAI for one or more than one securitization position and use the ECAI issue specific ratings issued by another ECAI for other securitization positions that may or may not be rated by the first-mentioned ECAI.

(B) Use of External Credit Assessments

I. Securitization exposures regarded as unrated

5. The reporting institution should regard any securitization exposure as unrated if it does not have an ECAI issue specific rating assigned to it by any of the institution's nominated ECAI(s).

II. Multiple assessments

6. If a securitization exposure has only one ECAI issue specific rating, that rating should be used to determine the risk-weight of that exposure.

7. If there are two or more ECAI issue specific ratings assigned to a securitization exposure which would map to different risk-weights, any one of those ratings may be used to determine the risk-weight of that exposure except the one or more of those ratings which would map to the lowest of those different risk-weights.

III. Inferred ratings (only applicable to institutions using IRB(S) Approach)

8. The reporting institution may determine the risk-weight of a securitization exposure held by it with no ECAI issue specific rating based on the ECAI issue

specific rating(s) of a reference securitization exposure (which may or may not be one held by the institution).

9. The reference securitization exposure should satisfy the following requirements:

- the reference securitization exposure should be subordinated in all respects to the securitization exposure held by the institution with no ECAI issue specific rating after taking into account credit enhancements, if any, when assessing the relative subordination of the exposure and the reference securitization exposure,

- the maturity of the reference securitization exposure is not less than that of the exposure; and

- the inferred rating is updated from time to time in order to reflect any changes in the ECAI issue specific rating of the reference securitization exposure.

10. The reporting institution should follow the principles set out in paragraph 7 to determine the appropriate risk-weight to be applied to the concerned exposure if there are two or more ECAI issue specific ratings assigned by two or more different ECAIs to the reference securitization exposure which would map to two or more different risk-weights.

IV. Others

11. In order to avoid any double counting of credit enhancement factors, no CRM techniques will be recognized if the credit enhancement is already reflected in the issue specific rating.

MAPPING OF ECAI ISSUE SPECIFIC RATINGS INTO CREDIT QUALITY GRADES UNDER RATINGS-BASED METHOD

TABLE A

LONG-TERM CREDIT QUALITY GRADE

Long-term credit quality grade (LTCQG)	Risk-weight A	Risk-weight B	Risk-weight C	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	7%	12%	20%	AAA AA+	Aaa Aa1	AAA AA+	AAA AA+
2	8%	15%	25%	AA AA-	Aa2 Aa3	AA AA-	AA AA-
3	10%	18%	35%	A+	A1	A+	A+
4	12%	20%	35%	A	A2	A	A
5	20%	35%	35%	A-	A3	A-	A-
6	35%	50%	50%	BBB+	Baa1	BBB+	BBB+
7	60%	75%	75%	BBB	Baa2	BBB	BBB
8		100%		BBB-	Baa3	BBB-	BBB-
9		250%		BB+	Ba1	BB+	BB+
10		425%		BB	Ba2	BB	BB
11		650%		BB-	Ba3	BB-	BB-
12		Deduction from core capital and supplementary capital		B+ B B- CCC+ CCC CCC- CC C D	B1 B2 B3 Caa1 Caa2 Caa3 Ca C	B+ B B- CCC+ CCC CCC- CC C D	B+ B B- CCC+ CCC CCC- CC C

TABLE B

SHORT-TERM CREDIT QUALITY GRADE

Short-term credit quality grade (STCQG)	Risk-weight A	Risk-weight B	Risk-weight C	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	7%	12%	20%	A-1+ A-1	P-1	F1+ F1	a-1+ a-1
2	12%	20%	35%	A-2	P-2	F2	a-2
3	60%	75%	75%	A-3	P-3	F3	a-3
4	Deduction from core capital and supplementary capital			B B-1 B-2 B-3 C D	NP	B C D	b c

For Tables A and B,

- risk-weights specified in column A denote risk-weights for senior securitization positions and the effective number of the underlying exposures of each position is not less than 6;
- risk-weights specified in column B denote risk-weights for securitization positions which are not senior securitization positions and the effective number of the underlying exposures of each position is not less than 6; and
- risk-weights specified in column C denote risk-weights for securitization positions where the effective number of the underlying exposures of each position is less than 6, whether or not the position is a senior securitization position.

Illustrative Examples on Calculating the Effect of Credit Risk Mitigation under Supervisory Formula Method

1. Illustrative example involving collateral — proportional cover

Assume an originating institution purchases a \$100 securitization exposure with a credit enhancement level in excess of K_{IRB} level for which an external or inferred rating is not available. Additionally, assume that the capital charge calculated by the use of supervisory formula method (the SF capital charge) on the securitization exposure is \$1.6 (when multiplied by 12.5 results in a risk-weighted amount of \$20).

Further assume that the originating institution has received \$80 of collateral on the securitization exposure in the form of cash that is denominated in the same currency as the securitization exposure. The capital charge for the exposure after adjusting for the effect of the collateral is determined by multiplying the SF capital charge by the ratio of adjusted exposure amount to the original exposure amount, as illustrated below.

Step 1:

Adjusted exposure amount (E*)

E* = max {0, [E x (1 + He) - C x (1 - Hc - Hfx)]}

= max {0, [100 x (1 + 0) - 80 x (1 - 0 - 0)]} = \$20

Where,

E* = exposure value after credit risk mitigation (\$20)

E = exposure value before credit risk mitigation (\$100)

He = haircut appropriate to the exposure (this haircut is not relevant because the originating institution is not lending the securitization exposure in exchange for collateral, thus zero value is assigned)

C = current value of the collateral received (\$80)

Hc = haircut appropriate to the volatility of collateral (\$0)

Hfx = haircut appropriate for the ***currency mismatch*** between the collateral and the exposure (\$0)

Step 2:

Capital charge = (E* / E) x SF capital charge

Capital charge = \$20 / \$100 x \$1.6 = \$0.32

2. Illustrative example involving a recognized guarantee — proportional cover

All of the assumptions provided in the illustrative example involving collateral apply except the form of credit risk mitigant. Assume that the originating institution has received an eligible, unsecured guarantee in the amount of $80 from another authorized institution. Therefore, a haircut for currency mismatch will not apply. The capital charge is determined as follows:

(a) The covered portion of the securitization exposure ($80) is to receive the risk-weight of the credit protection provider. The risk-weight for the protection provider is equivalent to that for an unsecured loan to the guarantor, as determined under the IRB approach. Assume that this risk-weight is 10%. Then, the capital charge for the covered portion will be: $80 x 10% x 8%= $0.64.

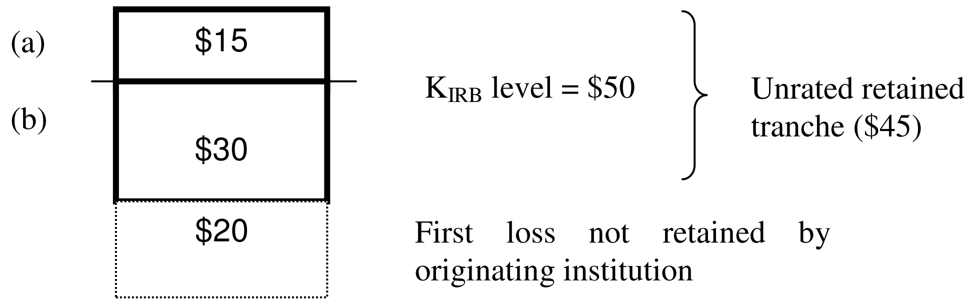
(b) The capital charge for the uncovered portion ($20) is derived by multiplying the capital charge for the securitization exposure by the share of the uncovered portion to the exposure amount. The share of the uncovered portion is: $20 / $100 = 20%. Thus, the capital charge will be: $1.6 x 20% = $0.32.

Total capital charge for the covered and uncovered portions
= $0.64 (covered portion) + $0.32 (uncovered portion) = $0.96

3. Illustrative example — the case of credit risk mitigants covering the most senior parts

Assume that an originating institution securitizes a pool of loans of $1000. The K_{IRB} of this pool of underlying exposures is 5% (capital charge of $50). There is a first loss tranche of $20. The originating institution retains only the second most junior tranche: an unrated tranche of $45.

The situation is summarized as follows:



(A) <u>Capital charge without collateral or guarantee</u>

According to this example, the capital charge for the unrated retained tranche that is straddling the K_{IRB} level is the sum of the capital charges of tranches (a) and (b) in the graph above:

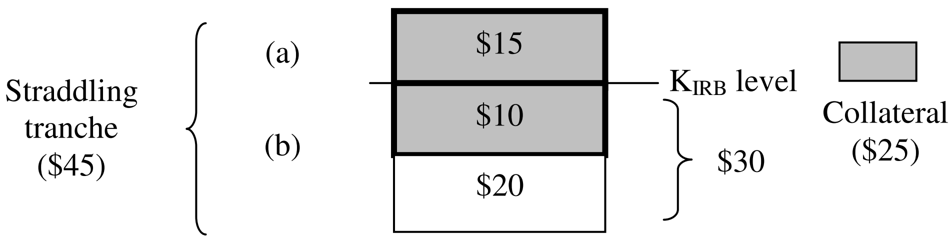
(a) Assume the effective risk-weight calculated under the supervisory formula method for this subtranche is 820%. Thus, the risk-weighted amount is: \$15 x 820% = \$123. The capital charge is: \$123 x 8% = \$9.84.

(b) The subtranche below K_{IRB} level should be deducted. The risk-weighted amount is: \$30 x1250% = \$375. The capital charge is: \$375 x 8% = \$30.

Total capital charge of the unrated straddling tranche
= \$9.84 + \$30 = \$39.84

(B) <u>Capital charge with collateral</u>

Assume now that the originating institution has received \$25 of collateral in the form of cash that is denominated in the same currency as the securitization exposure. Because the tranche is straddling the K_{IRB} level, we should assume that the collateral is covering the most senior subtranche above K_{IRB} level (i.e. subtranche (a) covered by \$15 of collateral) and, only if there is some collateral left, the coverage should be applied to the subtranche below K_{IRB} level beginning with the most senior portion (e.g. subtranche (b) covered by \$10 of collateral). Thus, we have:



The capital charge for the position is determined by multiplying the SF capital charge by the ratio of adjusted exposure amount to the original exposure amount, as illustrated below. It should be applied for the two subtranches.

(a) The **first subtranche** has **an initial exposure of \$15** and collateral of \$15, so in this case it is completely covered. In other words:

Step 1:
Adjusted exposure amount
E* = max {0, [E x (1 + He) - C x (1 - Hc - Hfx)]}
= max {0, [15 - 15]} = \$0
Where:
E* = exposure value after credit risk mitigation (\$0)
E = exposure value before credit risk mitigation (\$15)
C = current value of the collateral received (\$15)
He = haircut appropriate to the exposure (not relevant here, thus a zero value is assigned)

Hc = haircut appropriate to the volatility of collateral ($0)
Hfx = haircut appropriate to the currency mismatch of the collateral and the exposure ($0)

Step 2:
Capital charge = (E* / E) x SF capital charge
Capital charge = 0 x $9.84 = $0

(b) The **second subtranche** has an **initial exposure of $30** and collateral of $10, which is the amount left after covering the subtranche above K_{IRB} level. Thus, the $10 should be allocated to the most senior portion of the $30 subtranche.

Step 1:
Adjusted exposure amount
E* = max {0, [30 x (1 + 0) - 10 x (1 - 0 - 0)]} = $20

Step 2:
Capital charge = (E* / E) x SF capital charge
Capital charge = $20/$30 x $30 = $20

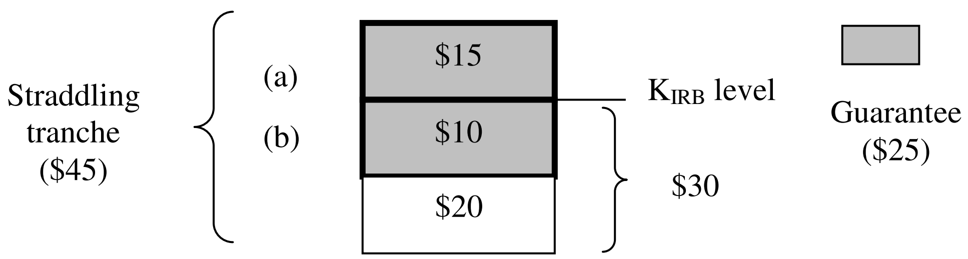
Finally, total capital charge of the unrated straddling tranche

= $0 + $20 = $20

(C) Capital charge with guarantee

Assume now that instead of collateral, the reporting institution has received an eligible, unsecured guarantee in the amount of $25 from another authorized institution (the guarantor). Therefore the haircut for currency mismatch will not apply.

The situation can be summarised as:



The capital charge of the two subtranches is determined as follows:

(a) The first subtranche has an initial exposure of $15 and a guarantee of $15, so in this case it is completely covered. The $15 will receive the risk-weight of the credit protection provider. The risk-weight of the credit protection provider is equivalent to that for an unsecured loan to the guarantor, as determined under the IRB approach. Assume that this risk-weight is 20%, the capital charge for the covered portion is: \$15 x 20% x 8%= \$0.24.

(b) The second subtranche has an initial exposure of \$30 and a guarantee of \$10 should be applied to the most senior portion of this subtranche. Accordingly, the covered portion is \$10 and the uncovered portion is \$20. Again, the covered portion of the securitization exposure is to receive the risk-weight of the guarantor. The capital charge for the covered portion is: \$10 x 20% x 8%= \$0.16. The capital charge for the uncovered portion (for an unrated position below K_{IRB} level) is \$20 x 1250% x 8%= \$20.

Total capital charge for the unrated straddling tranche
= \$0.24 (covered portion, above K_{IRB} level) + \$0.16 (covered portion, below K_{IRB} level) + \$20 (uncovered portion, below K_{IRB} level) = \$20.4

Annex IIId-E

CCF for Securitization Exposures Subject to Controlled Early Amortization Provision

Credit line	Uncommitted		Committed
	3-month average excess spread level	CCF	CCF
Retail	133.33% or more of trapping point	0%	90%
	less than 133.33% to 100% of trapping point	1%	
	less than 100% to 75% of trapping point	2%	
	less than 75% to 50% of trapping point	10%	
	less than 50% to 25% of trapping point	20%	
	less than 25% of trapping point	40%	
Non-retail	not applicable	90%	90%

CCF for Securitization Exposures Subject to Non-controlled Early Amortization Provision

Credit line	Uncommitted		Committed
	3-month average excess spread level	CCF	CCF
Retail	133.33% or more of trapping point	0%	100%
	less than 133.33% to 100% of trapping point	5%	
	less than 100% to 75% of trapping point	15%	
	less than 75% to 50% of trapping point	50%	
	less than 50% of trapping point	100%	
Non-retail	not applicable	100%	100%