

MAS NOTICE 637 (AMENDMENT NO. 2) 2017

Issued on: 29 November 2017

RISK BASED CAPITAL ADEQUACY REQUIREMENTS FOR BANKS INCORPORATED IN SINGAPORE

Introduction

1 This document reflects amendments made to MAS Notice 637 to implement revisions to the capital framework for securitisation exposures applicable to Singapore-incorporated banks. The amendments also include the International Development Association and the Asian Infrastructure Investment Bank in the list of qualifying multilateral development banks, along with other miscellaneous amendments.

2 For presentational purposes, the amendments in this document are compared with the version of MAS Notice 637 issued on 14 September 2012, as last revised on 22 September 2017 (the "Original Notice").

3 This document can be interpreted as follows:

- (a) Text which is coloured and struck through represent deletions;
- (b) Text which is coloured and underlined represent insertions;
- (c) Text which is highlighted in yellow are annotations to describe changes, and will not be included in the non-marked up version of MAS Notice 637. For instance, portions of the Original Notice which are deleted in entirety are accompanied by the following explanatory text in yellow highlights: *[The previous Division xx / Sub-division xx / Annex xx / Paragraph xx / Table xx is deleted.]*;
- (d) Any inserted portions are inserted in numerical or alphabetical order (as appropriate) with the existing text in the Original Notice;
- (e) Any inserted definitions in the Glossary at Annex 2A are inserted in alphabetical order with the existing definitions in the Original Notice; and
- (f) Portions of the Original Notice which are not reflected in this document are unchanged.

4 The amendments reflected in this document shall take effect on 1 January 2018.

5 In the event of discrepancies between the amendments in this document and the published version of MAS Notice 637 revised on 29 November 2017 (with effect from 1 January 2018), the published version of MAS Notice 637 shall prevail. This document is to be used for reference only.

Amendments to Part I

PART I: INTRODUCTION

1.1.1 This Notice is issued pursuant to section 10(2), section 36(2) and section 55 of the Banking Act and applies to all Reporting Banks.

1.1.2 This Notice establishes the minimum capital adequacy ratios for a Reporting Bank and the methodology a Reporting Bank shall use for calculating these ratios ("Pillar 1"). While this Notice provides a range of approaches for calculating regulatory capital requirements, a Reporting Bank should adopt the approaches that are commensurate with the complexity and sophistication of its businesses and operations. A Reporting Bank is also encouraged to move towards the risk management practices in the more advanced approaches even though it may not be ready to adopt them for the purpose of calculating its regulatory capital requirements.

1.1.3 In addition to complying with the minimum regulatory capital requirements in this Notice, a Reporting Bank shall consider whether it has adequate capital to cover its exposure to all risks. This Notice sets out the expectations of the Authority in respect of the internal capital adequacy assessment process of a Reporting Bank under the supervisory review process ("Pillar 2").

1.1.4 This Notice also specifies the minimum disclosure requirements for a Reporting Bank in relation to its capital adequacy, with a view to enhancing market discipline ("Pillar 3").

1.1.4A In addition, this Notice sets out the data submission and disclosure requirements for assessing global systemically important banks ("G-SIBs").

[MAS Notice 637 (Amendment) 2013]

1.1.4B A Reporting Bank shall refer to publications issued by the Basel Committee on Banking Supervision providing interpretative guidance on the Basel capital framework and the framework for assessing G-SIBs^A.

[MAS Notice 637 (Amendment) 2013]

1.1.5 ~~Subject to paragraph 1.1.6, this~~ This Notice shall take effect on 14 September 2012. MAS Notice 637 dated 14 December 2007 is cancelled with effect from 14 September 2012.

1.1.6 [Deleted by MAS Notice 637 (Amendment No. 2) 2014]

^A This includes "Basel III definition of capital – Frequently asked questions" (revised December 2011); "Interpretative issues with respect to the revisions to the market risk framework" (revised November 2011); "Basel III counterparty credit risk – Frequently asked questions" (revised December 2012); "Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement" (revised July 2013); "Frequently asked questions on the Basel III leverage ratio framework" (April 2016 (update of FAQs published in July 2015)); "Frequently asked questions on the Basel III Countercyclical Capital Buffer" (October 2015); and subsequent publications and revisions that may be issued by the Basel Committee on Banking Supervision from time to time.

[MAS Notice 637 (Amendment) 2013]

[MAS Notice 637 (Amendment No. 2) 2014]

[MAS Notice 637 (Amendment) 2016]

Amendments to Part II

PART II: DEFINITIONS

2.1.1 The expressions used in this Notice are defined in the Glossary at Annex 2A.

2.1.2 The expressions used in this Notice shall, except where defined in this Notice or where the context otherwise requires, have the same meanings as in the Banking Act.

2.1.3 Any reference to a paragraph, Sub-division, Division, Part or Annex is a reference to a paragraph, Sub-division, Division, Part or Annex in this Notice unless otherwise specified.

GLOSSARY

α	means – (a) in relation to the CCR internal models method, the alpha factor set out in paragraph 2.14 of Annex 7Q of Part VII; and (b) in relation to the BIA, 15%;
β	means in relation to the SA(OR) and the ASA, the fixed beta factor set out for each business line in Table 9-2 of Part IX;

[MAS Notice 637 (Amendment) 2016]

ABCP programme or asset-backed commercial paper programme	means a programme where <u>which</u> predominantly issues commercial paper to third party investors with an original maturity of one year or less which <u>and</u> is backed by assets or other exposures held in a bankruptcy-remote SPE is predominantly issued ;
ABCP programme sponsor	means an entity which – (a) establishes an ABCP programme purchases or advises or causes an SPE to purchase the exposures of a third party, which are then used to back commercial papers issued under an ABCP programme; or (b) approves the sellers of exposures permitted to participate in an ABCP programme <u>places ABCP securities into the market, or provides liquidity or credit enhancements to the ABCP;</u> (c) approves the asset pools to be purchased by an ABCP programme; or (d) administers the ABCP programme by monitoring the assets backing the asset-backed commercial paper, arranging for the placement of securities, compiling monthly reports or ensuring compliance with the ABCP programme documents and with the credit and investment policy of the ABCP programme;
Accounting Standards	has the same meaning as in section 4(1) of the Companies Act (Cap. 50);

affiliate	<p>means,</p> <ul style="list-style-type: none"> (a) an entity that has a beneficial interest in 20% or more of the total number of ordinary shares or controls 20% or more of the voting power in the Reporting Bank, or (b) an entity in which the Reporting Bank has a beneficial interest in 20% or more of the total number of ordinary shares or controls 20% or more of the voting power in the entity, or (c) an entity in which a related corporation of the Reporting Bank has a beneficial interest in 20% or more of the number of ordinary shares or controls 20% or more of the voting power in the entity; <p>[MAS Notice 637 (Amendment No. 2) 2014]</p>
A-IRBA or advanced IRBA	in relation to the IRBA wholesale asset class, means the approach under the IRBA under which a Reporting Bank uses its own estimates of PD, LGD and EAD;
allocation mechanism	in relation to the AMA where a Reporting Bank is a subsidiary of a banking institution incorporated outside Singapore, means the methodology used by the Reporting Bank to determine its operational risk capital based on an allocation of the operational risk capital of the banking institution incorporated outside Singapore;
AMA or advanced measurement approach	means the approach for calculating operational risk capital requirements set out in Division 5 of Part IX or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
AMA elements	means the internal and relevant external data on operational risk losses, scenario analysis and factors reflecting the business environment and internal control systems;
AMA exposure	means any exposure for which a Reporting Bank is using the AMA to calculate its operational risk capital requirement;
ASA or alternative standardised approach	means the approach for calculating operational risk capital requirements set out in Division 4 of Part IX or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
asset class	<p>means –</p> <ul style="list-style-type: none"> (a) in relation to the SA(CR), one of the classes of exposures set out in Sub-division 1 of Division 3 of Part VII; and (b) in relation to the IRBA, one of the classes of exposures set out in Sub-division 4 of Division 4 of Part VII;

associate	has the same meaning as "associate" under the Accounting Standards;
AT1 Capital or Additional Tier 1 Capital	means - (a) in relation to a Reporting Bank, the sum of items set out in paragraph 6.2.1; and (b) in relation to a subsidiary of a Reporting Bank, the sum of items set out in paragraph 6.2.1, where a reference to "Reporting Bank" shall be construed as a reference to "the subsidiary of the Reporting Bank";
[MAS Notice 637 (Amendment No. 2) 2014]	
AT1 capital instrument	means a capital instrument which complies with the requirements set out in paragraph 6.2.2;
Banking Act	means Banking Act (Cap. 19);
banking book	means all on-balance sheet and off-balance sheet exposures of a Reporting Bank other than its trading book positions;
banking group	means the Reporting Bank and its banking group entities;
banking group entity	means any subsidiary or any other entity which is treated as part of the Reporting Bank's group of entities according to Accounting Standards;
banking institution	means - (a) any bank licensed under the Banking Act; (b) any finance company licensed under the Finance Companies Act (Cap. 108); or (c) any entity which is approved, licensed, registered or otherwise regulated by a bank regulatory agency in a foreign jurisdiction to carry on banking business as defined in the Banking Act;
bank regulatory agency	in relation to a foreign jurisdiction, means an authority in the foreign jurisdiction exercising any function that corresponds to a regulatory function of the Authority under the Banking Act;
BCBS	means the Basel Committee on Banking Supervision;
BE&IC	means the business environment and internal control factors;
BIA or basic indicator approach	means the approach for calculating operational risk capital requirements set out in Division 2 of Part IX or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;

Board	means the board of directors, or a designated committee of the board of directors; [MAS Notice 637 (Amendment No. 2) 2014]
borrower grade	in relation to wholesale exposures, means a risk category within the obligor rating scale of a rating system to which obligors are assigned on the basis of a specified and distinct set of rating criteria and from which estimates of PD are derived;
CCF	means credit conversion factor;
CCP or central counterparty	means a clearing facility that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the future performance of open contracts, through novation, an open offer system or other legally binding arrangements. For the purposes of this Notice, a CCP is a financial institution; [MAS Notice 637 (Amendment) 2012] [MAS Notice 637 (Amendment No. 2) 2014]
CCP RWA	means the risk-weighted assets for exposures to CCPs calculated in accordance with Annex 7AJ; [MAS Notice 637 (Amendment) 2012]
CCP trade exposures	means current exposure, including the variation margin due to a clearing member but not yet received, potential future exposure and initial margin of a clearing member or a client of a clearing member arising from any OTC derivative transaction, exchange-traded derivative transaction, long settlement transaction or SFT; [MAS Notice 637 (Amendment) 2012] [MAS Notice 637 (Amendment) 2016]
CCR or counterparty credit risk	means the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows;
CCR internal models method	means the method for calculating E or EAD, whichever is applicable, for any pre-settlement counterparty exposure arising from any OTC derivative transaction, long settlement transaction or SFT set out in Annex 7Q of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
CDR	means cumulative default rate;

CET1 Capital or Common Equity Tier 1 Capital means -

- (a) in relation to a Reporting Bank, the sum of the items set out in paragraph 6.1.1; and
- (b) in relation to a subsidiary of a Reporting Bank, the sum of items set out in paragraph 6.1.1, where a reference to "Reporting Bank" shall be construed as a reference to "the subsidiary of the Reporting Bank";

[MAS Notice 637 (Amendment No. 2) 2014]

CET1 capital instrument means a capital instrument which complies with the requirements set out in paragraph 6.1.2;

[MAS Notice 637 (Amendment) 2014]

CET1 CAR means Common Equity Tier 1 capital adequacy ratio, calculated in accordance with paragraph 4.1.1;

CF means commodities finance;

clean-up call means an option which permits the securitisation exposures to be called before all of the underlying exposures or securitisation exposures have been repaid. In the case of a traditional securitisation, this is generally accomplished by repurchasing the remaining securitisation exposures once the underlying exposures or the outstanding securities issued have fallen below some specified level. In the case of a synthetic securitisation, the clean-up call may take the form of a clause that extinguishes the credit protection;

clearing member means a member of, or a direct participant in, a CCP that is entitled to enter into a transaction with the CCP, regardless of whether it enters into trades with a CCP for its own hedging, investment or speculative purposes or whether it also enters into trades as a financial intermediary between the CCP and other market participants. Where a CCP has a link to a second CCP, that second CCP shall be treated as a clearing member of the CCP^{AA};

[MAS Notice 637 (Amendment) 2012]

^{AA} Whether the second CCP's collateral contribution to the first CCP is treated as initial margin or a default fund contribution shall depend upon the legal arrangement between the CCPs. A Reporting Bank shall consult the Authority to determine whether such collateral contribution by the second CCP to the first CCP should be treated as an initial margin or default fund contribution. The Authority intends to consult and communicate with other financial services regulatory authorities via the "frequently asked questions" process of the Basel Committee on Banking Supervision to ensure consistency.

[MAS Notice 637 (Amendment) 2012]

client	<p>in relation to a clearing member, means a party to a transaction with a CCP through either the clearing member acting as a financial intermediary, or the clearing member guaranteeing the performance of the client to the CCP;</p> <p>[MAS Notice 637 (Amendment) 2012] [MAS Notice 637 (Amendment) 2014]</p>
client sub-account	<p>in relation to a clearing member, means an account for (a) transactions that it enters into with a client acting as a financial intermediary between the client and the CCP, and (b) collateral posted by such a client, that is held separately from the clearing member's proprietary transactions and collateral;</p> <p>[MAS Notice 637 (Amendment) 2016]</p>
CM or capital measure	<p>has the same meaning as Tier 1 Capital;</p> <p>[MAS Notice 637 (Amendment) 2014]</p>
controlled early amortisation provision	<p>means an early amortisation provision where the following requirements are complied with:</p> <p>(a) the originator has an appropriate capital and liquidity plan in place to ensure that it has sufficient capital and liquidity available in the event of an early amortisation;</p> <p>(b) throughout the duration of the transaction there is a pro-rata sharing of interest and principal, expenses, losses and recoveries based on the proportion of the originator's interests and the investors' interests in the receivables outstanding at the beginning of the month;</p> <p>(c) the amortisation period is sufficient for at least 90% of the total debt outstanding at the beginning of the amortisation period to have been repaid or recognised as in default; and</p> <p>(d) the speed of repayment is not more rapid than would be achieved by straight line amortisation over the period set out in item (c);</p>
co-operative society	<p>means a co-operative society registered under the Co-operative Societies Act (Cap. 62);</p> <p>[MAS Notice 637 (Amendment No. 2) 2014]</p>
core market participant	<p>means any of the entities listed in Annex 7L of Part VII;</p>
corporate exposure	<p>means –</p> <p>(a) in relation to the SA(CR), an exposure that falls within the definition in paragraph 7.3.1(f); and</p> <p>(b) in relation to the IRBA, an exposure that falls within the definition in paragraph 7.4.15(a);</p>

corporation has the same meaning as in section 4(1) of the Companies Act, but includes a co-operative society;

[MAS Notice 637 (Amendment No. 2) 2014]

CPF means the Central Provident Fund Board constituted under section 3 of the Central Provident Fund Act (Cap. 36);

CPSS means Committee on Payment and Settlement Systems;

[MAS Notice 637 (Amendment) 2012]

CRE means commercial real estate;

credit derivative means any contract which transfers the credit risk of a reference obligation or set of reference obligations from the protection buyer to the protection seller, such that the protection seller has an exposure to the reference obligation(s);

credit enhancement means a contractual arrangement in which a Reporting Bank [or other entity](#) retains or assumes a securitisation exposure that, in substance, provides some degree of credit protection to other parties to the securitisation;

credit RWA means the sum of all credit risk-weighted exposure amounts in respect of all credit exposures calculated as set out in paragraph 7.1.1;

credit-enhancing interest only strip means an on-balance sheet asset that represents a valuation of cash flows related to future margin income and is subordinated to the other securitisation exposures in a securitisation;

CRM or credit risk mitigation means any technique used by a Reporting Bank to reduce the credit risk associated with any exposure which the Reporting Bank holds;

cross-product netting means the netting between a Reporting Bank and a counterparty of pre-settlement counterparty exposures arising from transactions involving two or more of the following product categories:
(a) OTC derivative transaction;
(b) repo, reverse repo, securities or commodities lending transaction and securities or commodities borrowing transaction; [and](#)
(c) margin lending transaction.

CTP or correlation trading portfolio	<p>means a portfolio that incorporates –</p> <p>(a) securitisation exposures and n-th-to-default credit derivatives meeting the following criteria:</p> <ul style="list-style-type: none"> (i) the positions are neither resecuritisation positions, nor derivatives of securitisation exposures that do not provide a pro-rata share in the proceeds of a securitisation tranche (therefore excluding options on a securitisation tranche, or a synthetically leveraged super-senior tranche); (ii) all reference entities are single-name products, including single-name credit derivatives, for which a liquid two-way market exists. This will include commonly traded indices based on these reference entities; (iii) the positions do not reference an underlying exposure that would be treated as an SA(CR) exposure in the regulatory retail asset class, an SA(CR) exposure in the residential mortgage asset class, or an SA(CR) exposure in the CRE asset class; and (iv) the positions do not reference a claim on a special purpose entity, including any special purpose entity-issued instrument backed, directly or indirectly, by a position that would itself be excluded if held by a Reporting Bank directly, <p>and</p> <p>(b) positions that hedge the securitisation exposures and n-th-to-default credit derivatives described in paragraph (a) above, where –</p> <ul style="list-style-type: none"> (i) the positions are neither securitisation exposures nor n-th-to-default credit derivatives; and (ii) a liquid two-way market exists for the instrument by which the position is taken or its underlying exposures,
currency mismatch	<p>means a situation where an exposure and the collateral or credit protection provided in support of it are denominated in different currencies;</p>

current exposure	means the larger of zero, or the market value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in a bankruptcy or insolvency;
CVA or credit valuation adjustment	in relation to a Reporting Bank, means an adjustment to the mid-market valuation of the portfolio of trades with a counterparty, which reflects the market value of credit risk, and may include either the market value of the credit risk of the counterparty or the market value of the credit risk of both the Reporting Bank and the counterparty; [MAS Notice 637 (Amendment No. 2) 2014]
CVA RWA	means the risk-weighted assets for CVA calculated in accordance with Annex 7AI;
default	in relation to the IRBA, has the meaning in Annex 7X of Part VII;
default fund ^{AB}	means a fund established by a CCP, comprising the pre-funded or unfunded contributions of a CCP and its clearing members towards, or underwriting of, a CCP's mutualised loss sharing arrangements, and includes initial margins posted to a CCP in the case where the CCP uses the initial margins to mutualise losses among clearing members; [MAS Notice 637 (Amendment) 2012]
default fund exposure	means exposure arising from contributions of a Reporting Bank to a default fund of a CCP; [MAS Notice 637 (Amendment) 2012]
dilution	means any reduction in an amount receivable from a counterparty through cash or non-cash credits to the counterparty;
double default framework	means the framework for the recognition of credit protection for IRBA exposures set out in Annex 7G of Part VII;
DvP	means delivery-versus-payment;
EAD or exposure at the time of default	has the meaning in paragraph 4.1 of Annex 7Y of Part VII;

^{AB} A default fund may also be known as clearing deposits, guaranty fund deposits or any other name. The description given by a CCP to its mutualised loss sharing arrangements is not determinative of the status of the arrangement as a default fund, rather, the substance of such arrangements shall govern its status as a default fund.

early amortisation exposure	means any securitisation exposure or class of securitisation exposures for which a Reporting Bank is subject to the early amortisation treatment in accordance with Sub-division 6 of Division 6 of Part VII;
early amortisation provision	means a contractual clause which requires on provision that, once triggered, accelerates the occurrence reduction of defined events, on the investor's position interests in underlying exposures of a securitisation of revolving credit facilities ^{AC} , and allows investors to be redeemed paid out prior to the original originally stated maturity of the securities issued;
ECAI	means an external credit assessment institution, and includes all entities trading under the trade name of that external credit assessment institution; [MAS Notice 637 (Amendment) 2014]
EE or expected exposure	means the average of the distribution of exposures at any particular future date before the longest maturity transaction in the netting set matures;
effective EE	means as at a specific date, the maximum EE that occurs at that date or any prior date. Alternatively, it may be defined for a specific date as the greater of the expected exposure at that date, or the effective EE at the previous date;
effective EPE	means the weighted average over time of effective EEs over the first year of future exposures, or if all the contracts within the netting set mature before one year, over the time period of the longest maturity contract in the netting set, where the weights are the proportion that an individual effective EE represents of the entire time interval;
EL or expected loss	in relation to the IRBA, means the ratio of the amount expected to be lost on an exposure arising from a potential default of a counterparty, dilution or both, over a one-year period to the amount outstanding at default;
EL amount	has the meaning in Sub-division 14 of Division 4 of Part VII;
eligible CRE	means any CRE held as collateral where the requirements and guidelines set out in Annex 7F of Part VII are satisfied;
eligible credit protection	means any guarantee (or other instrument as the Authority may allow) or credit derivative where the requirements and guidelines set out in Annex 7F of Part VII are satisfied;

^{AC} A securitisation of revolving credit facilities is a securitisation in which one or more underlying exposures represent, directly or indirectly, current or future draws on a revolving credit facility. Examples of revolving credit facilities include credit card exposures, home equity lines of credit, commercial lines of credit, and other lines of credit.

eligible financial collateral	<p>means –</p> <ul style="list-style-type: none"> (a) in relation to the FC(SA), one or more types of collateral set out in paragraph 2.2 of Annex 7F of Part VII; and (b) in relation to the FC(CA), one or more types of collateral set out in paragraph 2.3 of Annex 7F of Part VII, <p>where the requirements and guidelines set out in Annex 7F of Part VII are satisfied;</p>
eligible IRBA collateral	<p>means one or more types of collateral set out in paragraph 2.5 of Annex 7F of Part VII where the requirements and guidelines set out in that Annex are satisfied;</p>

eligible liquidity facility

in relation to the SA(SE) or IRBA(SE), means a liquidity facility where the following requirements are complied with—

- ~~(a) the facility documentation clearly identifies the nature, purpose and extent of any undertaking or commitment provided to the SPE, and limits the circumstances under which it may be drawn;~~
- ~~(b) the facility is limited to a specified amount and duration, unless the Reporting Bank is able to withdraw, at its absolute discretion, the facility at any time with a reasonable period of notice;~~
- ~~(c) any draw made under the facility is provided to the SPE and not directly to investors, and is limited to the amount that is likely to be repaid fully from the liquidation of the underlying exposures and any seller provided credit enhancements;~~
- ~~(d) the facility does not cover any losses incurred in the underlying exposures prior to a draw, and is not structured such that draw down is certain (as indicated by regular or continuous draws or continuous revolving funding);~~
- ~~(e) the facility is subject to an asset quality test that precludes it from being drawn to cover credit risk exposures where the obligor(s) are in default;~~
- ~~(f) if the exposures that the liquidity facility is required to fund are securities with an external credit assessment by a recognised ECAI, the facility is used to fund only securities that have a credit quality grade of "8" or better or a short-term credit quality grade of "III" or better as set out in Tables 7R-3 and 7R-4, respectively, of Annex 7R of Part VII at the time of funding;~~
- ~~(g) the facility cannot be drawn after all applicable (e.g. transaction specific and programme wide) credit enhancements from which the facility would benefit have been exhausted;~~
- ~~(h) repayment of draws on the facility is not subordinated to any interests of any note holder in the programme or subject to deferral or waiver;~~
- ~~(i) the obligations of the Reporting Bank under the facility are standalone from its obligations under any other facility, commitment or undertaking provided by the Reporting Bank; and~~
- ~~(j) either—~~
 - ~~(i) an independent third party co-provides 25% of the liquidity facility that is to be drawn and re-paid on a pro-rata basis; or~~
 - ~~(ii) all the underlying exposures have a credit quality grade of "3" or better or a short term credit quality grade of "III" or better as set out in Tables 7R-1 and 7R-2, respectively, of Annex 7R of Part VII, and the facility documentation expressly provides that the Reporting Bank may reduce (and ultimately withdraw) its funding if the external credit assessment of the exposures falls to a credit quality grade of "4" or worse or to a short-~~

~~term credit quality grade of "IV" as set out in Tables 7R-1 and 7R-2, respectively, of Annex 7R of Part VII;~~

eligible physical collateral	means any physical collateral where the requirements and guidelines set out in Annex 7F of Part VII are satisfied;
eligible protection provider	<p>means -</p> <p>(a) in the case of a Reporting Bank using the SA(CR), SA(EQ), <u>SA(SE)SEC-IRBA, SEC-ERBA</u> or <u>IRBA(SE),SEC-SA</u>, a guarantor or protection seller which is -</p> <ul style="list-style-type: none"> (i) a central government, a central bank, the Bank for International Settlements, the International Monetary Fund, the European Central Bank or the European Community; (ii) an MDB; (iii) a PSE; (iv) a banking institution; or (v) in the case where the credit protection is - <ul style="list-style-type: none"> (A) not provided for a securitisation exposure, any other entity with an external credit assessment by a recognised ECAI; or (B) provided for a securitisation exposure, any other entity, <u>other than an SPE</u>, which has a credit quality grade of "2" or better as set out in Table 7R-1 of Annex 7R of Part VII at the time the credit protection was provided, and a credit quality grade of "3" or better as set out in Table 7R-1 of Annex 7R of Part VII during the period of recognition of the effects of CRM; <p>(b) in the case of a Reporting Bank adopting the F-IRBA and not intending to use the double default framework, a guarantor or protection seller which is -</p> <ul style="list-style-type: none"> (i) any entity in paragraphs (a)(i) to (v) above; or (ii) any entity which is internally rated; and <p>(c) in the case of a Reporting Bank adopting the F-IRBA and intending to use the double default framework, a guarantor or protection seller which complies with the requirements set out in paragraph 3.1 of Annex 7G of Part VII;</p>
eligible purchased receivables exposure	in relation to the IRBA, means any exposure that falls within the definition in paragraph 7.4.18;
eligible receivables	means any financial receivables held as collateral where the requirements and guidelines set out in Annex 7F of Part VII are satisfied;
eligible RRE	means any RRE held as collateral where the requirements and guidelines set out in Annex 7F of Part VII are satisfied;

Eligible Total Capital	in relation to a Reporting Bank or subsidiary of the Reporting Bank, means the sum of Tier 1 Capital and Tier 2 Capital; [MAS Notice 637 (Amendment No. 2) 2014]
EM or exposure measure	means the amount as calculated in accordance with paragraph 2.3 of Annex 4A; [MAS Notice 637 (Amendment) 2014]
EPE or expected positive exposure	means the weighted average over time of EEs over the first year, or if all the contracts within the netting set mature before one year, over the time period of the longest maturity contract in the netting set, where the weights are the proportion that an individual EE represents of the entire time interval;
equity exposure	has the meaning given to it in Sub-division 1 of Division 5 of Part VII; [MAS Notice 637 (Amendment No. 2) 2014]
ESR or excess spread ratio	in relation to securitisation exposures with early amortisation features, means the ratio of the 3-month average excess spread to the point at which a Reporting Bank is required to trap excess spread as economically required by the structure, expressed as a percentage;
excess spread	means any gross finance charge collections and other income received by the trust or SPE after deducting certificate interest, servicing fees, charge-offs, and other senior trust or SPE expenses;
facility grade	in relation to wholesale exposures, means a risk category within the facility rating scale of a rating system to which exposures are assigned on the basis of a specified and distinct set of rating criteria and from which estimates of LGD are derived;
FC(CA) or financial collateral comprehensive approach	means the method for calculating the effects of CRM arising from eligible financial collateral set out in Annex 7I of Part VII;
FC(SA) or financial collateral simple approach	means the method for calculating the effects of CRM arising from eligible financial collateral set out in Sub-division 4 of Division 3 of Part VII;

financial institution	<p>means an entity the principal activity of which is to carry on business in one or more of the following activities^{B,C}:</p> <ul style="list-style-type: none"> (a) banking business; (b) insurance business; (c) dealing or trading in securities, exchange-traded derivatives or OTC derivatives, whether as an agent or on a proprietary basis; (d) foreign exchange trading and leveraged foreign exchange trading, whether as an agent or on a proprietary basis; (e) advising on corporate finance; (f) fund management; (g) real estate investment trust management; (h) securities financing; (i) providing custodial services; (j) operating an exchange, trading system or market; (k) providing central counterparty services; (l) operating a payment system, securities depository, securities settlement system or trade repository; (m) providing financial advisory services; (n) insurance broking; (o) trust business; (p) money broking; (q) money-changing business; (r) remittance business; (s) lending; (t) factoring; (u) leasing; (v) provision of credit enhancements; (w) securitisation; or (x) such other business that the Authority may specify from time-to-time;
financial year	has the same meaning as in section 4(1) of the Companies Act (Cap. 50);
F-IRBA or foundation IRBA	in relation to the IRBA wholesale asset class, means the approach under the IRBA under which a Reporting Bank uses its own estimates of PD but not its own estimates of LGD and EAD;
FRA	means a forward rate agreement;
FRS 39	means the Singapore Financial Reporting Standard 39;

^B This includes a financial holding company which is not an operating entity that holds as a subsidiary, a banking institution or an insurance subsidiary.

[MAS Notice 637 (Amendment No. 2) 2014]

^C For avoidance of doubt, this includes any entity that is approved, licensed, registered or otherwise regulated by the Authority, or any foreign entity that carries out activities which, if carried out in Singapore, would have to be approved, licensed, registered or otherwise regulated by the Authority.

funded credit protection	means a CRM where the reduction of the credit risk of an exposure of a Reporting Bank is derived from the right of the Reporting Bank, in the event of the default of a counterparty or on the occurrence of other specified credit events relating to the counterparty, to liquidate, to obtain transfer or appropriation of, or to retain, certain assets or amounts;
gain-on-sale	means any increase in the equity of a Reporting Bank which is an originator resulting from the sale of underlying exposures in a securitisation; [MAS Notice 637 (Amendment No. 2) 2014]
general wrong-way risk	means the risk that arises when the probability of default of counterparties is positively correlated with general market risk factors;
hedging set	means a group of transactions within a single netting set within which full or partial offsetting is recognised for the purpose of calculating the potential future exposure under the SA-CCR; [MAS Notice 637 (Amendment) 2016]
higher level client	in relation to a multi-level client structure, means the financial institution providing clearing services; [MAS Notice 637 (Amendment) 2016]
house sub-account	in relation to a clearing member, means an account for (a) transactions conducted for its proprietary purposes and (b) collateral posted by the clearing member for such transactions, and that account is held separately from transactions conducted by the clearing member acting as a financial intermediary between the CCP and its client and collateral posted by such clients, in client sub-accounts; [MAS Notice 637 (Amendment) 2016]
HVCRE	means high-volatility commercial real estate;
IA	means the internal audit function or an equally independent function of a Reporting Bank;
IA MIAA or internal assessment method approach	means the method for calculating credit risk-weighted exposure amounts for securitisation exposures set out in Annex 7AF of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;

ICA or independent collateral amount means the amount of collateral other than variation margin posted by the counterparty that the Reporting Bank may seize upon default of the counterparty, which does not change in response to the value of transactions it secures, and includes the Independent Amount parameter defined in standard industry documentation^D;

[MAS Notice 637 (Amendment) 2016]

ICAAP means internal capital adequacy assessment process;

IMA or internal models approach means the approach for calculating market risk capital requirements set out in Division 3 of Part VIII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;

IMA exposure means any exposure for which a Reporting Bank is using the IMA to calculate its market risk capital requirement;

IMM or internal models method means the method for calculating credit risk-weighted exposure amounts for IRBA(EQ) exposures set out in Sub-division 4 of Division 5 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;

implicit support [in relation to a securitisation](#), means any support that a Reporting Bank provides to a securitisation in excess of its predetermined contractual obligations;

initial margin in relation to exposures to a CCP, means collateral of a clearing member or a client of a clearing member posted to the CCP to mitigate the potential future exposure of the CCP to the clearing member arising from the possible future change in value of their transactions, but shall not include any contribution to a CCP for mutualised loss sharing arrangements. This includes collateral in excess of the minimum amount required, provided the CCP or clearing member may prevent the clearing member or the client of a clearing member from withdrawing such excess collateral;

[MAS Notice 637 (Amendment) 2012]

[MAS Notice 637 (Amendment) 2016]

insurance subsidiary means a subsidiary which carries on insurance business as an insurer;

^D For example, the 1992 (Multicurrency-Cross Border) Master Agreement and the 2002 Master Agreement published by the International Swaps & Derivatives Association, Inc. (ISDA Master Agreement). The ISDA Master Agreement includes the ISDA CSA: the 1994 Credit Support Annex (Security Interest – New York Law), or, as applicable, the 1995 Credit Support Annex (Transfer – English Law) and the 1995 Credit Support Deed (Security Interest – English Law).

internal loss data	in relation to the AMA, means the internal data on operational risk losses;
IOSCO	means the International Organisation of Securities Commissions;
IPRE	means income-producing real estate;
IRBA or internal ratings-based approach	means the approach for calculating credit risk-weighted exposure amounts set out in Division 4 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
IRBA adoption date	means the date from which a Reporting Bank begins using the IRBA for calculating any part of its regulatory capital requirements;
IRBA asset class	means any one of the classes of exposures belonging to the IRBA wholesale asset class, the IRBA retail asset class or the IRBA eligible purchased receivables asset class;
IRBA asset sub-class	in relation to IRBA, means any one of the classes of exposures set out in paragraphs 7.4.15 to 7.4.18;
IRBA eligible purchased receivables asset class	in relation to the IRBA, means the class of exposures comprising eligible purchased receivables exposures;
IRBA exposure	means any exposure for which a Reporting Bank is using the IRBA to calculate its credit risk-weighted exposure amount;
IRBA parameters	means PD, LGD and EAD;
IRBA retail asset class	in relation to the IRBA, means the class of exposures comprising retail exposures;
IRBA wholesale asset class	in relation to the IRBA, means the class of exposures comprising wholesale exposures;
IRBA(EQ) or internal ratings-based approach for equity exposures	means the approach for calculating credit risk-weighted exposure amounts for equity exposures set out in Sub-division 4 of Division 5 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
IRBA(EQ) exposure	means any equity exposure for which a Reporting Bank is using the IRBA(EQ) to calculate its credit risk-weighted exposure amount;

IRBA(SE) or internal ratings-based approach for securitisation exposures	means the approach for calculating credit risk weighted exposure amounts for securitisation exposures set out in Sub-division 5 of Division 6 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
IRBA(SE) exposure	means any securitisation exposure for which a Reporting Bank is using the IRBA(SE) to calculate its credit risk weighted exposure amount;
<u>IRB pool or internal ratings-based pool</u>	<u>in relation to a securitisation, means a pool of underlying exposures to a securitisation for which a Reporting Bank has approval from the Authority under sub-division 3 of Division 4 of Part VII, and sufficient information, to calculate capital requirements using the IRBA for all underlying exposures;</u>
IRC or incremental risk charge	means the capital charges on incremental default and credit migration risks of positions which are subject to specific risk;
ISDA	means the International Swaps and Derivatives Association;
IT	means information technology;
JTD or jump to default	means an event where a credit exposure defaults before the market has factored its increased default risk into its current credit spreads;
JTD01	means the estimated decline in the mark-to-market value associated with a JTD of an entity, assuming a zero recovery rate for the entity's liabilities;
LGD or loss given default	in relation to the IRBA, has the meaning in paragraph 3.1 of Annex 7Y of Part VII;
long settlement transaction	means any transaction where a counterparty undertakes to deliver a security, a commodity or a foreign exchange amount against cash, other financial instruments or commodities, or vice versa, at a settlement or delivery date which is contractually specified as more than the lower of the market standard for this particular transaction type and five business days after the date on which the Reporting Bank enters into the transaction;
loss	in relation to the IRBA, means any economic loss on an exposure as described in Annex 7Y of Part VII;

lower level client	<p>in relation to a multi-level client structure, means the financial institution clearing through:</p> <p>(a) a client of a clearing member; or</p> <p>(b) a client of a client of a clearing member;</p> <p>[MAS Notice 637 (Amendment) 2016]</p>
LR or leverage ratio	<p>means the percentage calculated in accordance with paragraph 1.1 of Annex 4A;</p> <p>[MAS Notice 637 (Amendment) 2014]</p>
M or effective maturity	<p>in relation to the IRBA, means the maturity of an exposure, determined in the manner set out in Annex 7Z of Part VII;</p>
major stake company	<p>in relation to a Reporting Bank, means any company in which the Reporting Bank is deemed, by virtue of section 32(7) of the Banking Act, to hold a major stake;</p>
margin agreement	<p>means any contractual agreement or any terms and conditions of an agreement, where one counterparty has to supply collateral to a second counterparty when an exposure of that second counterparty to the first counterparty exceeds a specified level;</p>
margin lending transaction	<p>means a transaction in which a Reporting Bank extends credit in connection with the purchase, sale, carrying or trading of securities, where the loan amount is collateralised by securities whose value is generally greater than the amount of the loan, and does not include other loans that happen to be collateralised by securities;</p>
margin period of risk	<p>means the time period from the last exchange of collateral covering a netting set of transactions with a defaulting counterparty until that counterparty is closed out and the resulting market risk is re-hedged;</p>
margin threshold	<p>means the largest amount of an exposure that remains outstanding until one party has the right to call for collateral;</p>
market RWA	<p>means the risk-weighted assets for market risks determined in the manner set out in Part VIII;</p>
maturity mismatch	<p>means a situation where the residual maturity of the credit risk mitigant is less than the residual maturity of the underlying credit exposure;</p>
MDB	<p>means a multilateral development bank;</p>

<u>mixed pool</u>	<u>in relation to a securitisation, means a pool of underlying exposures to a securitisation for which a Reporting Bank has approval from the Authority under sub-division 3 of Division 4 of Part VII, and sufficient information, to calculate capital requirements using the IRBA for some, but not all, underlying exposures;</u>
multi-level client structure	means any structure in which clearing services are provided by a financial institution which is not a direct clearing member, but is itself a client of a clearing member or a client of a client of a clearing member; [MAS Notice 637 (Amendment) 2016]
n-th-to-default credit derivative	means a contract where – (a) the payoff is based on the n-th asset to default in a basket of underlying reference instruments; and (b) the transaction terminates and is settled once the n-th default occurs;
netting	means bilateral netting, including – (a) netting by novation, where obligations between two counterparties to deliver a given currency on a given value date under a transaction are automatically amalgamated with all other obligations under other transactions to deliver on the same currency and value date, thereby extinguishing former transactions with a single legally binding new transaction; and (b) close-out netting, where some or all of the ongoing transactions between two counterparties are terminated due to the default of either counterparty or upon the occurrence of a termination event as defined in the netting agreement, whereupon the values of such transactions are combined and reduced to a single payable sum, but excluding payments netting which is designed to reduce the operational cost of daily settlements, where the gross obligations of the counterparties are not in any way affected;
netting agreement	means any agreement which effects netting between two counterparties, or any other arrangement to effect netting, which does not contain a walkaway clause ¹ ;
netting set	means a group of transactions between two counterparties that is subject to a qualifying bilateral netting agreement or a qualifying cross-product netting agreement, as the case may be; any transaction which is not subject to a qualifying bilateral netting agreement or a qualifying cross-product netting agreement shall be deemed a netting set;

¹ "Walkaway clause" means any provision which permits a party to a netting agreement that is not in default to make limited payments or no payments at all, to a defaulting party under the same netting agreement, even if the party that is in default is a net creditor under the netting agreement.

NICA or net independent collateral amount	means the amount of segregated and unsegregated collateral posted by the counterparty less the unsegregated collateral posted by the Reporting Bank, and in relation to the Independent Amount defined in standard industry documentation, takes into account the differential of Independent Amount required for the Reporting Bank minus Independent Amount required for the counterparty ^{1A} ; [MAS Notice 637 (Amendment) 2016]
non-controlled early amortisation provision	means an early amortisation provision where the requirements of a controlled early amortisation provision are not complied with;
OF	means object finance;
offsetting transaction	means the transaction leg between a clearing member and the CCP when the clearing member acts on behalf of a client, for example, when a clearing member clears or novates a client's trade; [MAS Notice 637 (Amendment) 2012]
operating entity	means an entity that is conducting business with the intention of earning a profit in its own right; [MAS Notice 637 (Amendment No. 2) 2014]
operational risk	means the risk of loss resulting from – (a) inadequate or failed internal processes; (b) actions or omissions of persons; (c) systems; or (d) external events, including legal risk ^{1B} , but does not include strategic or reputational risk; [MAS Notice 637 (Amendment) 2016]
operational RWA	means the risk-weighted assets for operational risks determined in the manner set out in Part IX;

^{1A} For the avoidance of doubt, NICA represents the amount of collateral that a Reporting Bank may use to offset its exposure on the default of the counterparty, and does not include collateral that the Reporting Bank has posted to a segregated, bankruptcy remote account.

^{1B} Legal risk includes exposures to fines, penalties, or punitive damages resulting from criminal prosecution, regulatory or supervisory actions, as well as such damages or other sums payable resulting from civil claims or settlements.

originator	<p>means –</p> <p>(a) an entity which, either itself or through related entities, directly or indirectly, creates the exposure being securitised²; or</p> <p>(b) any entity which <u>sponsors a securitisation, i.e.</u> purchases or advises or causes an SPE to purchase the exposures of a third party, which are then used in a securitisation (for avoidance of doubt, selling credit protection such that the entity or the SPE has a long position in the credit risk of the obligor is equivalent to purchasing exposures)^{3 2A}, <u>and includes an ABCP programme sponsor</u>;</p>
ORM framework or operational risk management and measurement framework	means the approach of a Reporting Bank in identifying, assessing, monitoring, controlling and mitigating operational risk and includes the operational risk management processes and measurement systems of the Reporting Bank;
ORMF	means the operational risk management function;
ORMS or operational risk measurement system	means a subset of the ORM framework and includes the systems and data of a Reporting Bank that are used to measure operational risk. Central to the ORMS is the AMA model that is used by the Reporting Bank to quantify its operational risk capital requirement;
OTC	means over-the-counter;
OTC derivative transaction	means an exchange rate contract, interest rate contract, equity contract, precious metal or other commodity contract or credit derivative contract which is not traded on an exchange;
[MAS Notice 637 (Amendment) 2012]	
own-estimate haircuts	means haircuts calculated using the internal estimates of the Reporting Bank of market price volatility and foreign exchange volatility, based on an approach that complies with the requirements and meets the guidelines set out in Section 3 of Annex 7J of Part VII;

² Where an entity lends to an SPE with a view to enabling that SPE to make loans which are then used in a securitisation, the entity will generally be deemed to be acting as an originator.

^{3 2A} An entity which advises or causes an SPE to purchase the exposures of a third party, which are then used in a securitisation will generally not be deemed to be acting as an originator if –

- (a) the entity has not advised or caused the SPE to purchase any exposures which are then used in a securitisation before the date of issue of securities effecting the transfer of credit risk of those exposures to the investors in the securitisation;
- (b) the entity will not be liable for any losses incurred by the SPE arising from the exposures (for avoidance of doubt, the entity may still be liable for losses arising from a breach of its fiduciary duties); and
- (c) the entity does not undertake to achieve a minimum performance for the exposures.

parameterisation process	means the process by which a Reporting Bank derives estimates of IRBA parameters as set out in Section 5 of Annex 7AB of Part VII;
PD or probability of default	in relation to the IRBA, has the meaning in paragraph 2.1 of Annex 7Y of Part VII;
peak exposure	means a high percentile (typically 95% or 99%) of the distribution of exposures at any particular future date before the maturity date of the longest transaction in the netting set;
PE/VC investments	has the same meaning as defined in MAS Notice 630;
PF	means project finance;
preference share	has the same meaning as in section 4(1) of the Companies Act (Cap. 50);
PSE or public sector entity	means – (a) a regional government or local authority that is able to exercise one or more functions of the central government at the regional or local level; (b) an administrative body or non-commercial undertaking responsible to, or owned by, a central government, regional government or local authority, which performs regulatory or non-commercial functions; (c) a statutory board in Singapore (other than the Authority); or (d) a town council in Singapore established pursuant to the Town Councils Act (Cap. 392A);
QRRE	means qualifying revolving retail exposures;
qualifying bilateral netting agreement	means a bilateral netting agreement where the requirements set out in Annex 7N of Part VII are complied with;
qualifying cross-product netting agreement	means a cross-product netting agreement where the requirements set out in Annex 7N of Part VII are complied with;
qualifying MDB	means an MDB listed in Annex 7S of Part VII;
qualifying SFT	means an SFT where the requirements set out in Annex 7K of Part VII are complied with;
rating system	in relation to a class of exposures under the IRBA, means all of the methods, processes, controls, data collection and IT systems that support the assessment of credit risk, the assignment of exposures to grades or pools (internal risk ratings), and the parameterisation process for that class of exposures;

~~RBM or ratings-based method~~ means ~~the method for calculating credit risk weighted exposure amounts for securitisation exposures set out in Annex 7AE of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;~~

recognised ECAI means an ECAI recognised by the Authority pursuant to paragraph 7.3.53 and listed in Annex 7RA;

[MAS Notice 637 (Amendment) 2014]

recognised group A exchange has the same meaning as in regulation 2 of the Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licenses) Regulations;

reference obligation means any obligation specified under a credit derivative contract used for purposes of either determining cash settlement value or the deliverable obligation;

repo means a repurchase transaction;

Reporting Bank means a bank incorporated in Singapore;

regulated exchange means an exchange approved, licensed or otherwise regulated by the Authority or by a financial services regulatory authority other than the Authority;

regulatory capital means capital which is used to meet regulatory requirements;

[MAS Notice 637 (Amendment No. 2) 2014]

resecuritisation exposure means a securitisation exposure in which the risk associated with an underlying pool of exposures is tranching and at least one of the underlying exposures is a securitisation exposure, and includes an exposure to one or more resecuritisation exposures^{2B};

retail exposure in relation to the IRBA, means any exposure which falls within paragraph 7.4.16;

risk charge in relation to a market risk position, means the percentage assigned to that position to derive the capital requirement;

[MAS Notice 637 (Amendment No. 2) 2014]

^{2B} [An exposure resulting from retransferring of a securitisation exposure is not a resecuritisation exposure if the Reporting Bank is able to demonstrate that the cash flows to and from the Reporting Bank could be replicated in all circumstances and conditions by an exposure to the securitisation of a pool of assets that contains no securitisation exposures.](#)

risk weight	in relation to an exposure, means a degree of risk expressed as a percentage assigned to that exposure;
risk weight function	in relation to the IRBA, means the formula for calculating risk-weighted exposure amounts using estimates of IRBA parameters;
RRE	means residential real estate;
RWA	means risk-weighted assets;
RWE	means risk-weighted exposure;
SA-CCR or standardised approach for counterparty credit risk	means the method for calculating E or EAD, whichever is applicable, for any pre-settlement counterparty exposure arising from OTC derivative or exchange-traded derivative transactions, or long settlement transactions set out in Annex 70 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;

[MAS Notice 637 (Amendment) 2016]

SA(CR) or standardised approach to credit risk	means the approach for calculating credit risk-weighted exposure amounts set out in Division 3 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
SA(CR) exposure	means any exposure for which a Reporting Bank is using the SA(CR) to calculate its credit risk-weighted exposure amount;
SA(EQ) or standardised approach for equity exposures	means the approach for calculating credit risk-weighted exposure amounts for equity exposures set out in Sub-division 3 of Division 5 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
SA(EQ) exposure	means any equity exposure for which a Reporting Bank is using the SA(EQ) to calculate its credit risk-weighted exposure amount;
SA(MR) or standardised approach to market risk	means the approach for calculating market risk capital requirements set out in Division 2 of Part VIII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;

SA(OR) or standardised approach to operational risk	means the approach for calculating operational risk capital requirements set out in Division 3 of Part IX or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
<u>SA pool or standardised approach pool</u>	<u>in relation to a securitisation, means a pool of underlying exposures to a securitisation for which a Reporting Bank –</u> <u>(a) does not have approval from the Authority to use the IRBA to calculate capital requirements for any underlying exposures or does not have sufficient information to calculate capital requirements using the IRBA for any underlying exposures;</u> <u>or</u> <u>(b) is prohibited by the Authority from treating the pool as a IRB pool or a mixed pool;</u>
SA(SE) exposure	means any securitisation exposure for which a Reporting Bank is using the SA(SE) to calculate its credit risk weighted exposure amount;
SA(SE) or standardised approach for securitisation exposures	means the approach for calculating credit risk-weighted exposure amounts for securitisation exposures set out in Sub-division 4 of Division 6 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;
<u>SEC-ERBA or securitisation external ratings-based approach</u>	<u>means the approach for calculating credit risk-weighted exposure amounts for securitisation exposures set out in Sub-division 5 of Division 6 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;</u>
<u>SEC-IRBA or securitisation internal ratings-based approach</u>	<u>means the approach for calculating credit risk-weighted exposure amounts for securitisation exposures set out in Sub-division 4 of Division 6 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;</u>
<u>SEC-SA or securitisation standardised approach</u>	<u>means the approach for calculating credit risk-weighted exposure amounts for securitisation exposures set out in Sub-division 6 of Division 6 of Part VII or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, the equivalent under those requirements;</u>
securities	has the same meaning as in section 2 of the Securities and Futures Act (Cap. 289);

securities exchange	has the same meaning as in section 2 of the Securities and Futures Act (Cap. 289);
securities firm	means – <ul style="list-style-type: none"> (a) any entity holding a capital markets services licence under section 84(1) of the Securities and Futures Act (Cap. 289); or (b) any entity that is approved, licensed, registered or otherwise regulated by a regulatory agency other than the Authority to carry out activities permitted under a capital markets services licence under section 84(1) of the Securities and Futures Act (Cap. 289);
securitisation	means any transaction or scheme involving the tranching of credit risk associated with an exposure or a pool of exposures and which has the following characteristics: <ul style="list-style-type: none"> (a) payments in the transaction or scheme depend on the performance of the exposure or pool of exposures; (b) the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme; and (c) junior tranches can absorb losses without interrupting contractual payments to more senior tranches;
securitisation exposure	means any exposure of a Reporting Bank to a securitisation, and includes – <ul style="list-style-type: none"> (a) any on-balance sheet exposure to securities issued pursuant to a securitisation (e.g. asset-backed securities, mortgage-backed securities and collateralised debt obligations), <u>regardless of whether it was retained by the Reporting Bank at, or repurchased by the Reporting Bank after, the origination of the securitisation</u>; (b) any off-balance sheet exposure to a securitisation (e.g. through credit enhancements, liquidity facilities, credit derivatives, tranching cover, interest rate swaps or currency swaps), regardless of whether it was retained by the Reporting Bank at, or repurchased by the Reporting Bank after, the origination of the securitisation; and (c) reserve accounts (e.g. cash collateral accounts) recorded as an asset by the originating bank;
securitised exposure	means an exposure, securitised by a Reporting Bank in its capacity as originator or ABCP programme sponsor, that forms an underlying exposure of a securitisation;
segmentation	in relation to retail exposures, means the process by which a Reporting Bank aggregates retail exposures into homogenous pools;

<u>senior securitisation exposure</u>	<u>in relation to a securitisation, is an exposure to a senior securitisation tranche;</u>
<u>senior securitisation tranche</u>	<u>in relation to a securitisation, is a tranche that is effectively backed or secured by a first claim on the cash flows from the underlying exposures³;</u>
servicer	means a Reporting Bank which carries out administrative functions relating to the cash flows of the underlying exposure or pool of exposures of a securitisation, including setting up and operating the mechanism for collecting payments of interest or principal derived from the underlying exposures and channeling these funds to the investors or the trustee representing them, customer service, cash management, maintenance of records and reporting duties;
SF or supervisory formula	means the method for calculating credit risk weighted exposure amounts for securitisation exposures set out in Annex 7AG or, if the reference is to any regulatory requirements of, or administered by, a bank regulatory agency other than the Authority, whatever corresponds to that method under those requirements;
SFT	means a securities or commodities financing transaction comprising any one of the following: <ul style="list-style-type: none"> (a) a repo or a reverse repo; (b) a securities or commodities lending transaction or securities or commodities borrowing transaction; (c) a margin lending transaction, for which the value of the transaction depends on market valuation and the transaction is often subject to margin agreements; <p style="text-align: right;">[MAS Notice 637 (Amendment) 2012]</p>
SL	means specialised lending;
small business	means a corporation, partnership, limited liability partnership, sole proprietorship or trustee in respect of a trust with reported annual sales of less than \$100 million; <p style="text-align: right;">[MAS Notice 637 (Amendment) 2012]</p>

³ While this generally includes only the most senior securities issued pursuant to a securitisation, in some instances there may be other claims that may be more senior in the cash flow waterfall (e.g. a swap claim) but may be disregarded for the purpose of determining which tranches are senior. Different maturities of several senior tranches that share pro rata loss allocation shall have no effect on the seniority of these tranches, since they benefit from the same level of credit enhancement. The material effects of differing tranche maturities are captured by maturity adjustments on the risk weights to be assigned to the securitisation exposures. If a senior tranche is retransched or partially hedged (i.e. not on a pro rata basis), only the new most senior tranche would be treated as senior for capital purposes.

SPE or special purpose entity	means a corporation, trust, or other entity established for a specific purpose, the activities of which are limited to those appropriate to accomplish that purpose, and the structure of which is intended to isolate the SPE from the credit risk of an originator or seller of exposures;
specific wrong-way risk	means the risk that arises when the exposure to a particular counterparty is positively correlated with the probability of default of the counterparty due to the nature of the transactions with that counterparty;
	[MAS Notice 637 (Amendment) 2014]
structured note	has the same meaning as in Securities and Futures (Offers of Investments)(Shares and Debentures) Regulation 2005;
subsidiary	has the same meaning as in section 5 of the Companies Act (Cap. 50);
supervisory slotting criteria	in relation to the IRBA, means the method of calculating risk-weighted exposure amounts for exposures in the SL asset sub-class or the HVCRE asset sub-class in accordance with Sub-division 12 of Division 4 of Part VII and Annex 7V of Part VII;
supervisory validation	means the process by which the Authority examines the readiness of a Reporting Bank for adopting the IRBA or the AMA, as the case may be, for the purpose of deciding whether the Reporting Bank may begin a recognised parallel run;
synthetic securitisation	means a structure with at least two different tranches which reflect different degrees of credit risk, where credit risk of an underlying exposure or pool of exposures is transferred, in whole or in part, through the use of funded or unfunded credit derivatives or guarantees;
TEP or total eligible provisions	means the sum of all allowances, including specific allowances, partial write-offs, portfolio-specific general allowances such as country risk allowances and general allowances, which are attributed to credit exposures subject to the IRBA, and includes any discounts on defaulted assets, but excludes any CVA which has already been recognised by the Reporting Bank as an incurred write-down (i.e. a CVA loss);
the Authority	means the Monetary Authority of Singapore established under the Monetary Authority of Singapore Act (Cap. 186);
Tier 1 Capital	in relation to a Reporting Bank or subsidiary of the Reporting Bank, means the sum of CET1 Capital and AT1 Capital;

[MAS Notice 637 (Amendment No. 2) 2014]

Tier 1 CAR	means Tier 1 capital adequacy ratio, calculated in accordance with paragraph 4.1.2;
Tier 2 Capital	means - (a) in relation to a Reporting Bank, the sum of the items set out in paragraph 6.3.1; and (b) in relation to a subsidiary of a Reporting Bank, the sum of items set out in paragraph 6.3.1, where a reference to "Reporting Bank" shall be construed as a reference to "the subsidiary of the Reporting Bank";
[MAS Notice 637 (Amendment No. 2) 2014]	
Tier 2 capital instrument	means a capital instrument which complies with the requirements set out in paragraph 6.3.2;
Total CAR	means total capital adequacy ratio, calculated in accordance with paragraph 4.1.3;
trading book	has the meaning in Sub-division 3 of Division 1 of Part VIII;
traditional securitisation	means a structure where the cash flow from an underlying exposure or pool of exposures is used to service at least two different tranches reflecting different degrees of credit risk;
tranche	means a contractually established segment of the credit risk associated with an underlying exposure or pool of exposures, where a position in the segment entails a risk of credit loss greater than or less than a position of the same amount in each other such segment, without taking account of credit protection provided by third parties directly to the holders of positions in the segment or in other segments;
unconsolidated subsidiary	means a subsidiary whose assets and liabilities are not included in the consolidated financial statements of the banking group;
unconsolidated financial institution	means a financial institution whose assets and liabilities are not included in the consolidated financial statements of the banking group;
[MAS Notice 637 (Amendment) 2016]	
unconsolidated major stake company	means a major stake company whose assets and liabilities are not included in the consolidated financial statements of the banking group;
[MAS Notice 637 (Amendment) 2016]	
unfunded credit protection	means a CRM where the reduction of the credit risk of an exposure of a Reporting Bank is derived from the undertaking of a third party to pay an amount in the event of the default of a counterparty or on the occurrence of other specified events;

unrated	in relation to any exposure, means that the exposure does not have an external credit assessment from a recognised ECAI;
USD	means the United States dollar;
VaR or value-at-risk	means the maximum amount that can be lost from an investment or a portfolio of investments under normal market conditions over a given holding period at a particular confidence interval;
variation margin	in relation to exposures to a CCP, means funded collateral of a clearing member or a client of a clearing member posted on a daily or intraday basis to a CCP based on price movements of the transactions of the clearing member or the client of a clearing member; [MAS Notice 637 (Amendment) 2012] [MAS Notice 637 (Amendment) 2016]
wholesale exposure	in relation to the IRBA, means an exposure that falls within the definition in paragraph 7.4.15; and
written law	has the same meaning as in section 2 of the Interpretation Act.

Amendments to Part VI

PART VI: DEFINITION OF CAPITAL

Amendments to Paragraph 6.1.3

Regulatory Adjustments Applied in the Calculation of CET1 Capital

6.1.3 A Reporting Bank shall apply the following regulatory adjustments in the calculation of CET1 Capital at the Solo or Group level, as the case may be:

[MAS Notice 637 (Amendment No. 2) 2014]

- (a) goodwill, including any goodwill included in the valuation of investments in unconsolidated major stake companies, shall be deducted in the calculation of CET1 Capital.³³ The full amount representing goodwill shall be deducted, net of any associated deferred tax liability that would be extinguished if the goodwill becomes impaired or is derecognised under the Accounting Standards;

[MAS Notice 637 (Amendment No. 2) 2014]

[MAS Notice 637 (Amendment) 2016]

- (b) intangible assets, including but not limited to copyright, patents and other intellectual property, shall be deducted in the calculation of CET1 Capital. The full amount representing intangible assets shall be deducted, net of any associated deferred tax liability that would be extinguished if the intangible assets become impaired or are derecognised under the Accounting Standards;

[MAS Notice 637 (Amendment No. 2) 2014]

- (c) deferred tax assets that rely on the future profitability of the Reporting Bank or any banking group entity to be realised shall be deducted in the calculation of CET1 Capital.³⁴

At the Solo level, deferred tax assets may be netted with associated deferred tax liabilities prior to being deducted in the calculation of CET1 Capital, only if offsetting is permitted by the relevant tax authority. The deferred tax liabilities permitted to be netted against deferred tax assets shall exclude amounts that have been netted against the deduction of goodwill, intangible assets and defined benefit pension assets pursuant to sub-paragraphs (a), (b) and (h) respectively of this paragraph.

³³ For the avoidance of doubt, goodwill included in the carrying amount of associates accounted for using the equity method shall be deducted from CET1 Capital at the Group level. Such goodwill shall be calculated by separating any excess of the acquisition cost over the Reporting Bank's share of the net fair value of the identifiable assets and liabilities of the entity.

³⁴ An overinstallment of tax or current year tax losses carried back to prior years may give rise to a claim or receivable from the government or relevant tax authority. Such amounts are usually classified as current tax assets for accounting purposes. As the recovery of such a claim or receivable does not rely on the future profitability of the Reporting Bank or any banking group entity, it shall be assigned the relevant sovereign risk-weighting.

The Reporting Bank shall not permit the following for the purposes of calculating CET1 CAR, Tier 1 CAR or Total CAR at the Group level:

- (i) intra-entity netting of deferred tax assets against deferred tax liabilities for any banking group entity incorporated or established outside Singapore; and
- (ii) inter-entity netting of deferred tax assets against deferred tax liabilities.

However, the Authority may permit sub-paragraphs (i) and (ii) above if the Reporting Bank confirms in writing to the Authority that the deferred tax assets and deferred tax liabilities relate to taxes levied by the same tax authority, and that it has received written opinions from external auditors and legal advisors that the relevant tax authorities allow or would allow, deferred tax assets to be offset against the deferred tax liabilities. For the avoidance of doubt, the deferred tax liabilities permitted to be netted against deferred tax assets shall exclude amounts that have been netted against the deduction of goodwill, intangible assets and defined benefit pension assets pursuant to sub-paragraphs (a), (b) and (h) respectively of this paragraph;

- (d) the amount of cash flow hedge reserve that relates to the hedging of items that are not fair valued on the balance sheet, including projected cash flows, shall be derecognised in the calculation of CET1 Capital. In this regard, positive amounts shall be deducted, and negative amounts shall be added back³⁵;
- (e) in the case where the Reporting Bank has adopted the IRBA, any shortfall of the TEP relative to the EL amount shall be deducted in the calculation of CET1 Capital. The full amount shall be deducted, and shall not be reduced by any tax effects that could be expected to occur if provisions were to rise to the level of EL amount;
- (f) any increase in equity resulting from a securitisation transaction, such as that which is associated with expected future margin income resulting in a gain-on-sale, shall be deducted in the calculation of CET1 Capital;

[MAS Notice 637 (Amendment No. 2) 2014]

(fa) any exposures to credit-enhancing interest-only strips, net of:

(i) individual impairment allowances attributable to such exposures; and

(ii) the amount that shall be deducted in the calculation of CET1 Capital under sub-paragraph (f) that is attributable to such exposures;

³⁵ This adjustment specifically identifies and removes the element of the cash flow hedge reserve that gives rise to artificial volatility in common equity, as the reserve only reflects the fair value of the derivative, and not the change in the fair value of the hedged future cash flow.

shall be deducted in the calculation of CET1 Capital;

- (g) all unrealised fair value gains or losses on financial liabilities arising from changes in the credit risk of the Reporting Bank or any banking group entity shall be derecognised in the calculation of CET1 Capital. In this regard, positive amounts shall be deducted, and negative amounts shall be added back. In addition, all accounting valuation adjustments on derivative liabilities arising from changes in the credit risk of the Reporting Bank or any banking group entity shall be derecognised in the calculation of CET1 Capital. The offsetting between valuation adjustments arising from changes in the credit risk of the Reporting Bank or any banking group entity and those arising from changes in the credit risk of the counterparties shall not be allowed. In addition, any funding valuation adjustment applied by a Reporting Bank or any banking group entity shall not have the effect of offsetting or reducing its unrealised fair value gains or losses on financial liabilities or accounting valuation adjustments on derivative liabilities arising from changes in the credit risk of the Reporting Bank or any banking group entity, for the purpose of calculating the amount to be derecognised in the calculation of CET1 Capital;

[MAS Notice 637 (Amendment) 2016]

- (h) any defined benefit pension fund liabilities, as included in the balance sheet, shall be fully recognised in the calculation of CET1 Capital. For each defined benefit pension fund that is an asset on the balance sheet, the asset shall be deducted in the calculation of CET1 Capital net of any associated deferred tax liabilities which would be extinguished if the asset becomes impaired or derecognised under the Accounting Standards. Assets in the fund to which the Reporting Bank has unrestricted and unfettered access may, with the prior approval of the Authority, offset the deduction. Such offsetting assets shall be given the risk weight they would receive if they were owned directly by the Reporting Bank³⁶;
- (i) all investments in the Reporting Bank's own ordinary shares (including treasury shares, where applicable), whether held directly or indirectly³⁷ by the Reporting Bank or any of its banking group entities, shall be deducted in the calculation of CET1 Capital, unless already derecognised under the Accounting Standards.³⁸ If the Reporting Bank or any of its banking group entities is contractually obliged to purchase any of its own ordinary shares, the Reporting Bank shall deduct such ordinary shares in the calculation of

³⁶ This adjustment addresses the concern that assets arising from pension funds may not be capable of being withdrawn and used for the protection of depositors and other creditors of the Reporting Bank. The concern is that their only value stems from a reduction in future payments into the fund. The treatment allows the Reporting Bank to reduce the deduction of the assets if it can address these concerns and show that the assets can be easily and promptly withdrawn from the fund.

³⁷ Indirect holdings are exposures or parts of exposures that, if a direct holding loses its value, will result in a loss to the Reporting Bank substantially equivalent to the loss in value of the direct holding.

³⁸ This deduction is to avoid the double counting of the Reporting Bank's own capital that arises from direct holdings, indirect holdings via index funds and potential future holdings as a result of contractual obligations to purchase own shares.

CET1 Capital. This adjustment shall apply to exposures in both the banking book and trading book.³⁹

Gross long positions may be deducted net of short positions in the same underlying exposure, only if the short positions involve no counterparty credit risk. The Reporting Bank shall look through holdings of index securities to deduct exposures to its own ordinary shares.⁴⁰ However, gross long positions in its own ordinary shares resulting from holdings of index securities may be netted against short positions in its own ordinary shares, which result from short positions in the same underlying index⁴¹;

[MAS Notice 637 (Amendment No. 2) 2014]

- (j) reciprocal cross holdings in the ordinary share capital of financial institutions that are designed to artificially inflate the capital position of the Reporting Bank shall be deducted in the calculation of CET1 Capital;
- (k) [Deleted by MAS Notice 637 (Amendment) 2016]
- (l) PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630 shall be deducted in the calculation of CET1 Capital, unless otherwise approved by the Authority;
- (m) the full amount of capital deficits in subsidiaries that are financial institutions and that are subject to minimum prudential standards and supervision by a regulatory agency, and the pro-rata share of capital deficits in associates that are financial institutions and that are subject to minimum prudential standards and supervision by a regulatory agency, shall be deducted in the calculation of CET1 Capital. In the event that a recapitalisation plan is in place or an irrevocable commitment has been given by other shareholders to make up the capital deficit, the Authority may approve a corresponding reduction in the amount of deductions in respect of such capital deficits;
- (n) valuation adjustments made in accordance with Annex 8N that exceed the valuation adjustments made under financial reporting standards shall be deducted in the calculation of CET1 Capital;

³⁹ For the avoidance of doubt, this adjustment does not cover ordinary shares held by the Reporting Bank or any of its banking group entities where:

- (a) the investments in the ordinary shares are funded by third parties other than the Reporting Bank or any of its banking group entities (e.g. life insurance policyholders or other third party investors);
- (b) the risks and rewards associated with the investments in ordinary shares are borne primarily by the third parties; and
- (c) decisions to transact in the ordinary shares are made independently from the issuer of the capital instruments and in the interests of the third parties.

⁴⁰ If the Reporting Bank finds it operationally burdensome to look through and monitor its exact exposure to its own capital as a result of its holdings of index securities, the Reporting Bank may, with the prior approval of the Authority, use a conservative estimate. The methodology for the estimate should demonstrate that in no case will the actual exposure be higher than the estimated exposure.

⁴¹ In such cases, the short positions may involve counterparty credit risk, which will be subject to the relevant counterparty credit risk charge.

⁴² [Deleted by MAS Notice 637 (Amendment) 2016]

- (o) certain investments in the ordinary shares of unconsolidated financial institutions in which the Reporting Bank does not hold a major stake, shall be deducted in the calculation of CET1 Capital, in accordance with sub-paragraphs (i) and (ii) below:
 - (i) the amount of such investments to be deducted in the calculation of CET1 Capital shall be the proportion of ordinary share holdings to total capital holdings multiplied by the amount by which total capital holdings in aggregate exceed 10% of the Reporting Bank's common equity. In this sub-paragraph, the Reporting Bank's common equity for the purpose of calculating the 10% threshold shall be calculated after applying the regulatory adjustments set out in sub-paragraphs (a) to (n) above to the sum of the elements set out in paragraphs 6.1.1(a) to (f);
 - (ii) the total capital holdings and ordinary share holdings referred to in sub-paragraph (i) above shall be calculated as follows:
 - (A) direct, indirect⁴³ and synthetic holdings of capital instruments shall be included. For example, the Reporting Bank shall look through holdings of index securities to determine the underlying holdings of capital⁴³;
 - (B) the net long positions in both the banking book and trading book shall be included. In this regard, the gross long position can be offset against the short position in the same underlying exposure, if the maturity of the short position either matches the maturity of the long position, or has a residual maturity of at least one year^{44,45,46};
 - (C) underwriting positions held for a period longer than five working days shall be included, while those positions held for five working days or less can be excluded;
 - (D) if the capital instrument of the entity in which the Reporting Bank has invested does not meet the criteria for CET1 Capital,

⁴³ If the Reporting Bank finds it operationally burdensome to look through and monitor its exact exposure to the capital of such entities as a result of its holdings of index securities, the Reporting Bank may, with the prior approval of the Authority, use a conservative estimate. The methodology for the estimate should demonstrate that in no case will the actual exposure be higher than the estimated exposure.

⁴⁴ For positions in the trading book, if the Reporting Bank has a contractual right or obligation to sell a long equity position at a specific point in time and the counterparty in the contract has an obligation to purchase the long equity position if the Reporting Bank exercises its right to sell, this point in time may be treated as the maturity of the long position, and the maturity of the long and short positions are deemed to be matched.

⁴⁵ For a position hedged against market risk where the hedge does not qualify to offset the gross long position for the purpose of determining the amount to be deducted, the Reporting Bank may choose to include the long position in its calculation of market RWA, in addition to deducting the long position. Where the hedge qualifies to offset the gross long position, the Reporting Bank may choose to exclude both positions from its calculation of market RWA.

⁴⁶ Where a Reporting Bank uses a short position in an index to hedge a long position, the portion of the index that is composed of the same underlying exposure that is being hedged may be used to offset the long position only if (a) both positions are held in the trading book; (b) the positions are accounted for at fair value; and (c) the hedge is recognised as effective under the Reporting Bank's internal control processes, as assessed by the Authority.

AT1 Capital or Tier 2 Capital of the Reporting Bank, the capital instrument is to be considered as ordinary shares for the purpose of this regulatory adjustment⁴⁷;

- (E) the maximum amount that could be paid out on any guarantee or capital enhancement, through which capital support is provided by the Reporting Bank to a financial institution shall be included. The Reporting Bank shall consult the Authority if there is uncertainty whether such guarantee or capital enhancement is to be considered as ordinary shares for the purpose of the regulatory adjustment; and
- (F) certain investments where these have been made in the context of resolving or providing financial assistance to reorganise a distressed institution may be temporarily excluded with the approval of the Authority; and
- (iii) the amount of total capital holdings that do not exceed the 10% threshold calculated in accordance with sub-paragraph (i) above and are not deducted shall continue to be risk-weighted⁴⁸. For the application of risk-weighting, the amount of the holdings shall be allocated on a pro rata basis between those below and those above the threshold;

[MAS Notice 637 (Amendment) 2016]

- (p) certain investments in the ordinary shares of unconsolidated financial institutions in which the Reporting Bank holds a major stake (including insurance subsidiaries at the Solo and Group levels), shall be deducted in the calculation of CET1 Capital, in accordance with sub-paragraphs (i) and (ii) below, unless a deduction has been made pursuant to sub-paragraph (l) above:
 - (i) the amount of such investments to be deducted in the calculation of CET1 Capital shall be the amount by which such investments in

⁴⁷ For the avoidance of doubt,

- (a) a capital instrument would be deemed to have met the criteria for CET1 Capital, AT1 Capital or Tier 2 Capital of the Reporting Bank, if it satisfies the applicable regulatory capital criteria imposed by a bank regulatory agency that has implemented the Basel III standards;
- (b) if the entity in which the Reporting Bank has invested is a financial institution that is subject to minimum prudential standards and supervision by a regulatory agency and the investment is not included as regulatory capital of the entity, the investment can be excluded for the purpose of this regulatory adjustment; and

[MAS Notice 637 (Amendment) 2016]

- (c) if the entity in which the Reporting Bank has invested is a financial institution that is not a bank, the entity is subject to minimum prudential standards and supervision by a regulatory agency and the investment is not in the form of ordinary shares but is nevertheless recognised as Tier 1 capital (or its equivalent) or Tier 2 capital (or its equivalent) of the entity, the capital instrument shall be considered as an AT1 capital instrument or Tier 2 capital instrument, respectively, for the purpose of this regulatory adjustment.

[MAS Notice 637 (Amendment) 2016]

⁴⁸ Capital instruments in the banking book and trading book will thus be subject to the appropriate capital treatment as set out in Part VII and Part VIII, respectively.

aggregate exceed the threshold amount. In this sub-paragraph, the threshold amount is the lower of⁴⁹:

- (A) 10% of the Reporting Bank's common equity, calculated by applying the regulatory adjustments set out in sub-paragraphs (a) to (o) above to the sum of elements set out in paragraph 6.1.1(a) to (f); and
 - (B) 15% of the Reporting Bank's CET1 Capital⁵⁰;
- (ii) the investments in aggregate referred in sub-paragraph (i) above shall be calculated as follows:
- (A) direct, indirect³⁷ and synthetic holdings shall be included. For example, the Reporting Bank shall look through holdings of index securities to determine the underlying holdings of ordinary shares⁴³;
 - (B) the net long positions in both the banking book and trading book shall be included. In this regard, the gross long position can be offset against the short position in the same underlying exposure, if the maturity of the short position either matches the maturity of the long position or has a residual maturity of at least one year^{44,45,46};
 - (C) underwriting positions held for a period longer than five working days shall be included, while those positions held for five working days or less can be excluded;
 - (D) if the capital instrument of the entity in which the Reporting Bank has invested does not meet the criteria for CET1 Capital, AT1 Capital or Tier 2 Capital of the Reporting Bank, the capital instrument is to be considered as ordinary shares for the purpose of this regulatory adjustment^{50A};

⁴⁹ For the period from 1 January 2013 to 31 December 2017, the threshold amount is based on sub-paragraph (A) only. The requirement to calculate the threshold amount based on the lower of sub-paragraph (A) and sub-paragraph (B) will take effect from 1 January 2018.

⁵⁰ This is equivalent to 17.65% of the Reporting Bank's common equity after (a) applying all regulatory adjustments set out in paragraphs 6.1.3(a) to (o); and (b) deducting in full such investments described in paragraph 6.1.3(p)(ii).

^{50A} For the avoidance of doubt,

- (a) a capital instrument would be deemed to have met the criteria for CET1 Capital, AT1 Capital or Tier 2 Capital of the Reporting Bank, if it satisfies the applicable regulatory capital criteria imposed by a bank regulatory agency that has implemented the Basel III standards;
- (b) if the entity in which the Reporting Bank has invested is a financial institution that is subject to minimum prudential standards and supervision by a regulatory agency and the investment is not included as regulatory capital of the entity, the investment can be excluded for the purpose of this regulatory adjustment; and
- (c) if the entity in which the Reporting Bank has invested is a financial institution that is not a bank, the entity is subject to minimum prudential standards and supervision by a regulatory agency and the investment is not in the form of ordinary shares but is nevertheless recognised as Tier 1 capital (or its equivalent) or Tier 2 capital (or its equivalent) of the entity, the capital instrument shall be considered as an AT1 capital instrument or Tier 2 capital instrument, respectively, for the purpose of this regulatory adjustment.

[MAS Notice 637 (Amendment) 2016]

- (E) the maximum amount that could be paid out on any guarantee or capital enhancement, through which capital support is provided by the Reporting Bank to a financial institution shall be included. The Reporting Bank shall consult the Authority if there is uncertainty whether such guarantee or capital enhancement is to be considered as ordinary shares for the purpose of the regulatory adjustment; and
 - (F) certain investments where these have been made in the context of resolving or providing financial assistance to reorganise a distressed institution may be temporarily excluded with the approval of the Authority; and
- (iii) the amounts of such investments that do not exceed the thresholds set out in sub-paragraph (i) above and are not deducted shall be risk-weighted at 250%;

[MAS Notice 637 (Amendment No. 2) 2014]

[MAS Notice 637 (Amendment) 2016]

- (q) any other item or class of items which the Authority may specify in writing to the Reporting Bank for the purpose of this paragraph; and
- (r) in the case where the Reporting Bank does not have enough AT1 Capital to satisfy the required deductions set out in paragraph 6.2.3, the shortfall shall be deducted in the calculation of CET1 Capital.

Amendments to Part VII

PART VII: CREDIT RISK

Division 1: Overview of Credit RWA Calculation

Amendments to Paragraph 7.1.1

Sub-division 1: Introduction

7.1.1 The credit RWA of a Reporting Bank is the sum of -

- (a) its SA(CR) RWA calculated in accordance with Sub-division 3 of this Division, and its SA(EQ) RWA calculated in accordance with Sub-division 5 of this Division ~~and its SA(SE) RWA calculated in accordance with Sub-division 6 of this Division~~;
- (b) its IRBA RWA calculated in accordance with Sub-division 4 of this Division, and its IRBA(EQ) RWA calculated in accordance with Sub-division 5 of this Division ~~and its IRBA(SE) RWA calculated in accordance with Sub-division 6 of this Division~~, with the total multiplied by 1.06¹⁰¹;
- (ba) its SEC-IRBA RWA, SEC-ERBA RWA and SEC-SA RWA, and RWA from securitisation exposures to which the SEC-IRBA, SEC-ERBA, and SEC-SA cannot be applied, calculated in accordance with Sub-division 6 of this Division;
- (c) its CVA RWA calculated in accordance with Annex 7AI;
- (d) its CCP RWA calculated in accordance with Annex 7AJ; and
- (e) its RWA calculated in accordance with paragraph 6.1.3(p)(iii).

[MAS Notice 637 (Amendment) 2012]

[MAS Notice 637 (Amendment) 2014]

¹⁰¹ This scaling factor is subject to change, taking into account further guidance from the BCBS.

The previous Sub-division 6 (Calculation of Credit RWA for Securitisation Exposures) is deleted and substituted with the following Sub-division 6

Sub-division 6: Calculation of Credit RWA for Securitisation Exposures

7.1.8 To calculate its RWA for a securitisation exposure, a Reporting Bank shall –

- (a) apply the exposure measurement requirements in Division 2 of this Part to calculate E, EAD, or where applicable E* or EAD*, for any securitisation exposure;
- (b) calculate the credit-risk weighted exposure amount for each securitisation exposure, using the following formula –

$$\text{Credit RWE} = \text{Exposure} \times \text{RW}$$

where –

- (i) “Credit RWE” refers to the credit risk-weighted exposure amount for that securitisation exposure;
- (ii) “Exposure” refers to E, EAD, or where applicable E* or EAD*, for that securitisation exposure calculated in accordance with sub-paragraph (a) above; and
- (iii) “RW” refers to –
 - (A) the applicable risk weight for an SEC-IRBA exposure determined in accordance with Sub-division 4 of Division 6 of this Part, as adjusted by Sub-division 9 of Division 6 of this Part;
 - (B) the applicable risk weight for an SEC-ERBA exposure determined in accordance with Sub-division 5 of Division 6 of this Part, as adjusted by Sub-division 9 of Division 6 of this Part;
 - (C) the applicable risk weight for that SEC-SA exposure determined in accordance with Sub-division 6 of Division 6 of this Part, as adjusted by Sub-division 9 of Division 6 of this Part; or
 - (D) 1250% if the Reporting Bank is unable to use any of the three approaches referred to in sub-paragraphs (b)(iii)(A) to (b)(iii)(C) above, or where it cannot meet the requirements in sub-paragraphs (a) to (c) of paragraph 7.6.8,

subject to the maximum risk weights applicable for senior exposures, calculated in accordance with paragraphs 7.1.9 to 7.1.11;

- (c) add the credit risk-weighted exposure amounts calculated in accordance with sub-paragraph (b) for all its securitisation exposures arising from the

same securitisation, and in doing so, may cap the credit risk-weighted exposure amount arising from the same securitisation in accordance with paragraphs 7.1.12 to 7.1.16, and adjust the credit risk-weighted exposure amounts to recognise the effects of credit risk mitigation in accordance with paragraph 7.1.17; and

- (d) add the credit risk-weighted exposure amounts calculated in accordance with sub-paragraph (c) for all its securitisation exposures across all securitisations.

Maximum Risk Weight for Senior Exposures

7.1.9 A Reporting Bank may apply a “look-through” approach to senior securitisation exposures, where the risk weight applied to a senior securitisation exposure is capped at the exposure weighted-average risk weight applicable to the underlying exposures, provided that the Reporting Bank has knowledge of the composition of the underlying exposures at all times –

- (a) where the Reporting Bank exclusively uses either the SA(CR) or the IRBA to calculate capital requirements for the underlying pool, the risk weight applied to the senior securitisation exposure is capped at the exposure weighted-average risk weight applicable to the underlying exposures under the SA(CR) or IRBA respectively; and

- (b) in the case of mixed pools –

- (i) when applying the SEC-IRBA, the risk weight applied to the senior securitisation exposure is capped at the exposure weighted-average risk weight calculated using –

- (A) the SA(CR) risk weights for the SA portion of the underlying pool; and

- (B) the IRBA risk weights for the IRB portion of the underlying pool; and

- (ii) when applying the SEC-SA or the SEC-ERBA, the risk weight applied to the senior securitisation exposure is capped at the exposure weighted-average risk weight applicable to the underlying assets under the SA(CR), whether or not the Reporting Bank is able to use the IRBA to calculate their risk weights.

The Reporting Bank shall calculate the applicable risk weight under the IRBA taking into account the application of the 1.06 scaling factor pursuant to paragraph 7.1.1(b) and the expected loss multiplied by 12.5.

7.1.10 Where the risk weight cap results in a lower risk weight than the floor risk weight of 15%, a Reporting Bank shall apply the risk weight resulting from the cap.

7.1.11 A Reporting Bank shall not apply the cap on risk weights described in paragraphs 7.1.9 to 7.1.10 to resecuritisation exposures.

Maximum Risk-Weighted Exposure Amounts

7.1.12 A Reporting Bank (as an originator or investor in a securitisation) using the SEC-IRBA for a securitisation exposure may cap the risk-weighted exposure amount for the securitisation exposures it holds in the same securitisation in accordance with paragraph 7.1.14.

7.1.13 A Reporting Bank (as an originator in a securitisation) using the SEC-ERBA or SEC-SA for a securitisation exposure may cap the risk-weighted exposure amount for the securitisation exposures it holds in the same securitisation in accordance with paragraph 7.1.14.

7.1.14 A Reporting Bank which is capping the risk-weighted exposure amount shall apply a maximum aggregated risk-weighted exposure for its securitisation exposures in the same securitisation of $P \times K_P \times 12.5$, with P and K_P defined as follows –

(a) P: The largest proportion of interest that the Reporting Bank holds across all tranches of a given pool–

- (i) if the Reporting Bank's securitisation exposures all reside in a single tranche of a given securitisation, P equals the proportion (expressed as a percentage) of securitisation exposures that the Reporting Bank holds in that given tranche (calculated as the total nominal amount of the Reporting Bank's securitisation exposures in the tranche divided by the nominal amount of the tranche); and
- (ii) if the Reporting Bank's securitisation exposures reside in different tranches of a given securitisation, P equals the maximum proportion of interest across tranches, where the proportion of interest for each of the different tranches should be calculated as described above.

(b) K_P : The capital requirement for the underlying pool –

- (i) for an IRB pool, K_P equals K_{IRB} as calculated in paragraphs 7.6.19 to 7.6.30;
- (ii) for an SA pool, K_P equals K_{SA} as calculated in paragraphs 7.6.53 to 7.6.59; and
- (iii) for a mixed pool, K_P equals the exposure-weighted average capital requirement of the underlying pool using K_{SA} for the proportion of the underlying pool for which the bank cannot calculate K_{IRB} , and K_{IRB} for the proportion of the underlying pool for which a bank can calculate K_{IRB} .

7.1.15 Notwithstanding the maximum risk-weighted exposure cap, a Reporting Bank shall deduct the entire amount of any gain on sale and credit-enhancing interest-only

strips arising from the securitisation transaction in accordance with paragraph 6.1.3(f) and 6.1.3(fa) of Part VI.

7.1.16 A Reporting Bank shall not apply the cap on risk-weighted exposure amounts described in paragraphs 7.1.12 to 7.1.14 to resecuritisation exposures.

7.1.17 A Reporting Bank which is adjusting its credit risk-weighted exposure amounts to recognise the effects of credit risk mitigation pursuant to paragraph 7.1.8(c) above –

- (a) shall compute an effective risk weight for each securitisation exposure, using the following formula –

$$\text{Effective risk weight} = \text{Credit RWE} / \text{Exposure}$$

where –

- (i) “Effective risk weight” refers to the risk weight applicable to the unprotected portion of the securitisation exposure;
- (ii) “Credit RWE” refers to the credit risk-weighted exposure amount for that securitisation exposure calculated in accordance with 7.1.8(a) to 7.1.8(c), after the application of any caps;
- (iii) “Exposure” refers to E, EAD, or where applicable E* or EAD*, for that securitisation exposure calculated in accordance with paragraph 7.1.8(a); and
- (b) shall recognise the effects of credit risk mitigation in accordance with Sub-division 11 of Division 6 of this Part, using the effective risk weight calculated in sub-paragraph (a) as the risk weight that is applicable to the unprotected portion of the securitisation exposure.

Division 2: Measurement of Exposures

Amendments to Sub-division 1 (Introduction)

Sub-division 1: Introduction

7.2.1 A Reporting Bank shall apply the exposure measurement requirements set out in this Division and the standards for prudent valuation set out in Annex 8N ~~of Part VIII~~ to calculate -

- (a) E, or where applicable E*, for any SA(CR) exposure, SA(EQ) exposure, SEC-ERBA exposure or SA(SE)SEC-SA exposure; and
- (b) EAD, or where applicable EAD*, for any IRBA exposure, IRBA(EQ) exposure or IRBA(SE)SEC-IRBA exposure.

7.2.2 A Reporting Bank shall consult with the Authority on the appropriate treatment to apply in the measurement of E or EAD, whichever is applicable, for transactions that have not been addressed in this Division.

7.2.3 A Reporting Bank shall calculate -

- (a) E, or where applicable E*, for any SA(CR) exposure, SA(EQ) exposure, SEC-ERBA exposure or SA(SE)SEC-SA exposure net of any
 - (i) individual impairment allowance¹⁰⁴ attributable to such SA(CR) exposure, SA(EQ) exposure, SEC-ERBA exposure or SA(SE)SEC-SA exposure, and
 - (ii) purchase price discount attributable to such SEC-ERBA exposure or SEC-SA exposure,as determined in accordance with the Accounting Standards;
- (b) EAD, or where applicable EAD*, for any IRBA exposure gross of any individual impairment allowance or partial write-offs attributable to such IRBA exposure as determined in accordance with the Accounting Standards^{104A}; and
- (c) EAD, or where applicable EAD*, for any IRBA(EQ) exposure or IRBA(SE)SEC-IRBA exposure net of any
 - (i) individual impairment allowance attributable to such IRBA(EQ) exposure or IRBA(SE)SEC-IRBA exposure, and
 - (ii) purchase price discount attributable to such SEC-IRBA exposure,

¹⁰⁴ Individual impairment allowance is also commonly known as specific allowance.

^{104A} The EAD on drawn amounts shall not be less than the sum of (i) the amount by which a Reporting Bank's regulatory capital would be reduced if the exposure were written-off fully, and (ii) any individual impairment allowances and partial write-offs. The difference between the EAD and the sum of (i) and (ii), where positive, is defined as a discount. For the avoidance of doubt, EAD, or where applicable EAD*, and the calculation of IRBA RWA is independent of any discounts.

as determined in accordance with the Accounting Standards.

Amendments to Sub-division 3 (Measurement of E or EAD for Off-balance Sheet Items Other than Pre-settlement Counterparty Exposures Arising from OTC Derivative Transactions, Long Settlement Transactions and SFTs)

Sub-division 3: Measurement of E or EAD for Off-balance Sheet Items Other than Pre-settlement Counterparty Exposures Arising from OTC Derivative Transactions, Long Settlement Transactions and SFTs

7.2.6 For each off-balance sheet item other than a pre-settlement counterparty exposure arising from an OTC derivative transaction, long settlement transaction or SFT¹⁰⁷, a Reporting Bank shall calculate E or EAD, whichever is applicable, by –

- (a) ~~in the case of an early amortisation exposure, multiplying the amount of investors' interest¹⁰⁸ with the applicable CCF set out in Annex 7E of this Part; and~~
- (b) ~~in all other cases,~~ multiplying the notional amount¹⁰⁹ of each item¹¹⁰ with –
 - (i) the applicable CCF set out in Annex 7A ~~of this Part~~ if that item is an SA(CR) exposure;
 - (ii) the applicable CCF set out in Annex 7B ~~of this Part~~ if that item is an IRBA exposure, unless the Reporting Bank is adopting the A-IRBA_{or}

¹⁰⁷ Notwithstanding this, a Reporting Bank which is exposed to the risk of the underlying securities in an OTC derivative transaction, long settlement transaction or SFT which is in substance similar to a forward purchase or credit substitute shall calculate E or EAD, whichever is applicable, for such an exposure in accordance with this Sub-division.

¹⁰⁸ ~~Investors' interest is defined as the sum of –
(a) investors' drawn balances related to the securitised exposures; and
(b) E or EAD, whichever is applicable, associated with investors' undrawn balances related to the securitisation exposures. E or EAD is determined by allocating the undrawn balances of securitised exposures on a pro-rata basis based on the proportions of the originator's and investor's shares of the securitised drawn balances.~~

¹⁰⁹ The notional amount of an off-balance sheet item refers to the amount which has been committed but is as yet undrawn. The amount to which the CCF is applied is the lower of the value of the unused committed credit line, and the value which reflects any possible constraining availability of the facility, such as the existence of a ceiling on the potential lending amount which is related to an obligor's reported cash flow. If the facility is constrained in this way, the Reporting Bank shall have sufficient line monitoring and management procedures to support this contention.

¹¹⁰ Any foreign exchange transaction or translation gain or loss from a foreign currency-denominated off-balance sheet item should be allocated to the exposure to which it accrues.

the IRBA for the IRBA retail asset class, in which case it shall use its own internal estimates of CCFs¹¹¹ where relevant¹¹²; or

(iii) the applicable CCF set out in Annex 7C ~~of this Part~~ if that item is ~~an SA(SE)a securitisation~~ exposure; ~~or~~

~~(iv) the applicable CCF set out in Annex 7D of this Part if that item is an IRBA(SE) exposure.~~

7.2.6A For the avoidance of doubt, if a Reporting Bank has securitised only the drawn balances of revolving credit facilities^{112A}, the Reporting Bank shall hold capital against the undrawn balances associated with the securitised exposures, and shall calculate E or EAD, whichever is applicable, based on the applicable CCF set out in Annex 7A if the exposure is an SA(CR) exposure, or Annex 7B if that item is an IRBA exposure.

7.2.7 For avoidance of doubt, where a Reporting Bank has provided unfunded credit protection via a total rate of return swap, E or EAD, whichever is applicable, shall be equal to the notional amount of the underlying reference credit for which the Reporting Bank is providing protection adjusted for any payments received from or made to the protection buyer and recognised in the profit and loss account of the Reporting Bank. Where a Reporting Bank has provided unfunded credit protection via a credit default swap, E or EAD, whichever is applicable, shall be equal to the notional amount of the underlying reference credit for which the Reporting Bank is providing protection.

Amendments to Sub-division 5 (Recognition of Eligible Financial Collateral for Securitisation Exposures)

Sub-division 5: Recognition of Eligible Financial Collateral for Securitisation Exposures

7.2.15 A Reporting Bank which has taken eligible financial collateral for a securitisation exposure^{114A} may recognise the effect of such collateral used to hedge the credit risk of a securitisation exposure, in accordance with paragraphs 7.2.16 to 7.2.19 ~~below~~.

7.2.16 A Reporting Bank using the ~~SA(SE)SEC-ERBA or SEC-SA~~ may use either the FC(SA) or the FC(CA) to recognise the effect of eligible financial collateral. The Reporting Bank shall apply the chosen approach consistently to the entire banking book and shall not use a combination of both approaches.

¹¹¹ A Reporting Bank adopting the A-IRBA or the IRBA for the IRBA retail asset class shall calculate historical EAD using a default-weighted average and not a time-weighted average when making its own internal estimates of CCFs.

¹¹² An exposure that is subject to a 100% CCF under the F-IRBA shall continue to be subject to a 100% CCF under the A-IRBA. EAD for foreign exchange and interest rate commitments within a Reporting Bank's IRBA retail asset class shall be determined in accordance with paragraph 7.2.6(b)(i).

^{112A} A securitisation of revolving credit facilities is a securitisation in which one or more underlying exposures represent, directly or indirectly, current or future draws on a revolving credit facility. Examples of revolving credit facilities include credit card exposures, home equity lines of credit, commercial lines of credit, and other lines of credit.

^{114A} Collateral pledged by an SPE may be recognised.

7.2.17 A Reporting Bank using the ~~SA(SE)SEC-ERBA or SEC-SA~~ and the FC(SA) may recognise the effect of eligible financial collateral in accordance with Sub-division ~~4-11~~ of Division 6 of this Part. Paragraphs 7.2.18 and 7.2.19 ~~in this Sub-division~~ do not apply to a Reporting Bank using the FC(SA).

7.2.18 A Reporting Bank using the ~~SA(SE)SEC-ERBA or SEC-SA~~ and the FC(CA) may calculate E*, the ~~SA(SE)SEC-ERBA or SEC-SA~~ exposure adjusted for eligible financial collateral, in accordance with Annex 7I ~~of this Part~~ and substitute E* for E when calculating the credit risk-weighted exposure amount for that ~~SA(SE)SEC-ERBA or SEC-SA~~ exposure under Sub-division 6 of Division 1 of this Part.

7.2.19 A Reporting Bank using the ~~IRBA(SE)SEC-IRBA~~ may calculate EAD*, the ~~IRBA(SE)SEC-IRBA~~ exposure adjusted for eligible financial collateral and eligible IRBA collateral, in accordance with Annex 7I ~~of this Part~~ and substitute EAD* for EAD when calculating the credit risk-weighted exposure amount for that ~~IRBA(SE)SEC-IRBA~~ exposure under Sub-division 6 of Division 1 of this Part.

Re-numbering of Existing Footnote 114A

7.2.20A For each counterparty, the E or EAD, whichever is applicable, for each OTC derivative transaction calculated in accordance with paragraph 7.2.20, shall be the greater of zero and the difference between the sum of E or EAD, whichever is applicable, across all netting sets with the counterparty and the CVA for that counterparty which has already been recognised by the Reporting Bank as an incurred write-down (i.e. a CVA loss). The Reporting Bank shall calculate the CVA loss without taking into account any offsetting debit valuation adjustments which have been deducted in the calculation of CET1 Capital in accordance with paragraph 6.1.3(g) of Part VI^{~~114A~~114AA}.

[MAS Notice 637 (Amendment No. 2) 2014]

^{~~114~~114AA} Where a Reporting Bank uses a combination of the SA-CCR and CCR internal models method to calculate its E or EAD, whichever is applicable, to a single counterparty, the Reporting Bank shall allocate separately (with no double-counting) collateral posted by the counterparty, for the purposes of calculating its E or EAD, whichever is applicable, under each of the respective methods.

[MAS Notice 637 (Amendment) 2016]

Division 3: SA(CR)

Amendments to Sub-division 4 (Treatment of Credit Protection and Recognition of Eligible Financial Collateral)

Sub-division 4: Treatment of Credit Protection and Recognition of Eligible Financial Collateral

Treatment of Eligible Credit Protection Bought

7.3.41 A Reporting Bank which has bought eligible credit protection for an SA(CR) exposure may recognise the effects of CRM of the eligible credit protection as follows:

- (a) break down the SA(CR) exposure into -
 - (i) a protected portion with E equal to the notional amount of the eligible credit protection¹⁴⁰; and
 - (ii) an unprotected portion with E equal to the E of the SA(CR) exposure less the notional amount of the eligible credit protection; and
- (b) for the purposes of calculating the credit risk-weighted exposure amount pursuant to Sub-division 3 of Division 1 of this Part, use -
 - (i) for the protected portion, the risk weight that is applicable to the eligible protection provider^{140A}; and
 - (ii) for the unprotected portion, the risk weight that is applicable to the obligor.

[MAS Notice 637 (Amendment No. 2) 2014]

7.3.42 Notwithstanding paragraph 7.3.41(b), a Reporting Bank shall apply a 1250% risk weight to any materiality threshold below which no payment will be made by the protection provider in the event of loss on an SA(CR) exposure as such threshold is equivalent to a retained first loss position.

7.3.43 A Reporting Bank shall apply the relevant provisions in Annex 7H of this Part for the purpose of determining the protected portion in cases of proportional cover, principal-only cover, partially eligible credit derivatives, tranching cover and basket credit derivatives.

Treatment of Credit Protection Sold

¹⁴⁰ A Reporting Bank shall treat the protected portion of an SA(CR) exposure which has a currency mismatch or maturity mismatch in accordance with Annex 7F of this Part.

^{140A} Where a Reporting Bank has bought from an eligible protection provider a credit default swap which is an eligible credit protection and cleared through a CCP, the Reporting Bank may apply a risk weight of 2% if the credit default swap constitutes a CCP trade exposure in accordance with paragraph 2.1 or 2.5 of Annex 7AJ, or 4% if the credit default swap constitutes a CCP trade exposure in accordance with paragraph 2.6 of Annex 7AJ.

[MAS Notice 637 (Amendment No. 2) 2014]

7.3.44 A Reporting Bank which has sold unfunded credit protection acquires exposure to the reference asset. If such exposure is an SA(CR) exposure, the Reporting Bank shall calculate the credit risk-weighted exposure amount for the exposure using the risk weight that is applicable to the obligor of the reference asset.

7.3.45 If the unfunded credit protection has more than one reference asset, the credit risk-weighted exposure amount for the credit protection is the sum of the credit risk-weighted exposure amounts in respect of each reference asset calculated using the risk weights that are applicable to the obligors of the respective reference assets.

7.3.46 A Reporting Bank which has sold funded credit protection acquires exposure to both the reference asset and the protection buyer. If such exposures are SA(CR) exposures, the Reporting Bank shall calculate the credit risk-weighted exposure amount for the credit protection as the sum of -

- (a) the credit risk-weighted exposure amount for the exposure to the reference asset calculated in accordance with paragraphs 7.3.44 and 7.3.45 above, as applicable; and
- (b) the credit risk-weighted exposure amount for the exposure to the protection buyer, using -
 - (i) E = the carrying amount of the collateral placed with the protection buyer; and
 - (ii) the risk weight that is applicable to the protection buyer.

[MAS Notice 637 (Amendment) 2014]

7.3.47 The capital requirement for the credit protection calculated in accordance with paragraphs 7.3.45 and 7.3.46 shall not exceed the notional amount of the credit protection i.e. the maximum possible payout under the credit protection.

7.3.48 Where a Reporting Bank has provided credit protection (whether funded or unfunded) through a proportionate structure, i.e. where the maximum possible payout in respect of any particular reference asset is capped at a pre-determined proportion of the notional amount of the credit protection, the Reporting Bank shall divide the exposure into individual sub-exposures equal to the proportionate amount of credit protection in respect of each reference asset for the purposes of calculating the credit risk-weighted exposure amount applicable to the credit protection sold.

7.3.49 Where a Reporting Bank has provided credit protection for a basket of reference exposures through a first-to-default credit derivative, the Reporting Bank shall calculate the credit risk-weighted exposure amount applicable to the credit protection sold [as follows](#)

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- ~~(a) where the credit derivative has an external credit assessment by a recognised ECAI, apply the capital treatment as set out in paragraph 7.6.19 and 7.6.20 of this Part; and~~

~~(b) where the credit derivative is unrated, apply the capital treatment as set out in paragraph 7.6.25 of this Part.~~

~~by aggregating the risk weights that would be assigned to the reference exposures, subject to a cap of 1250%, and multiplying the aggregate with the nominal amount of the protection provided by the credit derivative.~~

7.3.49A Where a Reporting Bank has provided credit protection for a basket of reference exposures through a second-to-default credit derivative, the Reporting Bank shall calculate the credit risk-weighted exposure amount applicable to the credit protection sold ~~as follows~~

~~(a) where the credit derivative has an external credit assessment by a recognised ECAI, apply the capital treatment as set out in paragraph 7.6.19 and 7.6.20 of this Part; and~~

~~(b) where the credit derivative is unrated, apply the capital treatment as set out in paragraph 7.6.26 of this Part.~~

~~by applying the treatment referred to in paragraph 7.3.49, except that in aggregating the risk weights, the risk weights assigned to the reference exposure with the lowest credit risk-weighted exposure amount may be excluded.~~

Recognition of Eligible Financial Collateral under FC(SA)

7.3.50 Subject to paragraph 7.3.51 below, a Reporting Bank which has taken eligible financial collateral for an SA(CR) exposure and is using the FC(SA)¹⁴¹ may recognise the effects of CRM of the eligible financial collateral as follows:

- (a) break down the SA(CR) exposure into -
 - (i) a collateralised portion with E equal to the latest fair value of the eligible financial collateral; and
 - (ii) an uncollateralised portion with E equal to the E of the SA(CR) exposure less the latest fair value of the eligible financial collateral; and
- (b) for the purposes of calculating the credit risk-weighted exposure amount pursuant to Sub-division 3 of Division 1 of this Part, use -
 - (i) for the collateralised portion, the risk weight that is applicable to the eligible financial collateral as though the Reporting Bank had a direct exposure to that collateral; and
 - (ii) for the uncollateralised portion, the risk weight that is applicable to the obligor.

¹⁴¹ The Reporting Bank shall mark-to-market and revalue the collateral at least on a six monthly basis or more frequently if specified by the Authority. A Reporting Bank which is using FC(SA) shall not recognise the effects of CRM of any collateral with a maturity mismatch.

7.3.51 If the risk weight determined in accordance with paragraph 7.3.50(b)(i) above is less than 20%, a Reporting Bank shall apply a risk weight of 20% to the collateralised portion of the SA(CR) exposure, except in the following cases:

- (a) a qualifying SFT where the counterparty in the transaction is a core market participant, in which case the Reporting Bank may apply a risk weight of 0%;
- (b) a qualifying SFT where the counterparty in the transaction is not a core market participant, in which case the Reporting Bank may apply a risk weight of 10%;
- (c) an OTC derivative transaction subject to daily mark-to-market that is collateralised by cash, and where there is no currency mismatch, in which case the Reporting Bank may apply a risk weight of 0%;
- (d) an OTC derivative transaction subject to daily mark-to-market that is collateralised by exposures to central governments, central banks or PSE or a combination thereof qualifying for a 0% risk weight under the SA(CR), and where there is no currency mismatch, in which case the Reporting Bank may apply a risk weight of 10%; and
- (e) a transaction where there is no currency mismatch and the collateral comprises -
 - (i) cash on deposit as set out in paragraph 2.2(a) of Annex 7F of this Part; or
 - (ii) exposures in the central government and central bank asset class or in the PSE asset class or a combination thereof qualifying for a 0% risk weight under the SA(CR), and the latest fair value of such collateral has been discounted by 20% for the purposes of determining the value of the collateralised portion of the SA(CR) exposure in accordance with paragraph 7.3.50(a)(i) above,

in which case the Reporting Bank may apply a risk weight of 0%.

Treatment of Pools of CRM

7.3.52 A Reporting Bank which is using multiple CRM to cover a single SA(CR) exposure (e.g. the Reporting Bank has both eligible financial collateral and eligible credit protection partially covering the exposure) shall sub-divide the exposure into portions covered by each type of CRM (e.g. a portion covered by eligible financial collateral and a portion covered by eligible credit protection) and calculate the credit risk-weighted exposure amount of each portion separately by applying paragraphs 7.3.41, 7.3.42, 7.3.43, 7.3.50 and 7.3.51, whichever is applicable. A Reporting Bank shall apply the same approach when recognising eligible credit protection by a single protection provider with differing maturities.

Division 4: IRBA

Amendments to Sub-division 9 (Calculation of K for Eligible Purchased Receivables Asset Class)

Sub-division 9: Calculation of K for Eligible Purchased Receivables Asset Class

7.4.42 A Reporting Bank shall calculate K_{cp} using the following formula:

$$K_{cp} = [K_{df, cp} + K_{dil, cp}]$$

where " $K_{df, cp}$ " refers to the capital requirement for the default risk of purchased corporate receivables and " $K_{dil, cp}$ " refers to the capital requirement for the dilution risk¹⁶⁶ of purchased corporate receivables. A Reporting Bank need not calculate $K_{dil, cp}$ if the Reporting Bank demonstrates to the satisfaction of the Authority that dilution risk is immaterial.

7.4.43 A Reporting Bank shall calculate K_{sp} using the following formula:

$$K_{sp} = [K_{df, sp} + K_{dil, sp}]$$

where " $K_{df, sp}$ " refers to the capital requirement for the default risk of purchased corporate small business receivables and " $K_{dil, sp}$ " refers to the capital requirement for the dilution risk of purchased corporate small business receivables. A Reporting Bank need not calculate $K_{dil, sp}$ if the Reporting Bank demonstrates to the satisfaction of the Authority that dilution risk is immaterial.

7.4.44 A Reporting Bank shall calculate K_{rp} using the following formula:

$$K_{rp} = [K_{df, rp} + K_{dil, rp}]$$

where " $K_{df, rp}$ " refers to the capital requirement for the default risk of purchased retail receivables and " $K_{dil, rp}$ " refers to the capital requirement for the dilution risk of purchased retail receivables. A Reporting Bank need not calculate $K_{dil, rp}$ if the Reporting Bank demonstrates to the satisfaction of the Authority that dilution risk is immaterial.

¹⁶⁶ In addition to default risk, a purchased receivable is also exposed to dilution risk which refers to the possibility that the receivable amount is reduced through cash or non-cash credits to the obligor of the receivable. Examples include offsets or allowances arising from returns of goods sold, disputes regarding product quality, possible debts of the borrower to an obligor of the receivables, and any payment or promotional discounts offered by the borrower (e.g. a credit for cash payments within 30 days).

Calculation of Capital Requirements for Default Risk, K_{df}

7.4.45 Subject to paragraph 7.4.46, a Reporting Bank shall calculate¹⁶⁷ -

- (a) $K_{df, cp}$ by applying the formula set out in paragraph 7.4.21 or 7.4.21A as appropriate, subject to the Reporting Bank receiving approval to adopt the IRBA for the corporate asset sub-class;
- (b) $K_{df, sp}$ by applying the formula set out in paragraph 7.4.22 or 7.4.22A as appropriate, subject to the Reporting Bank receiving approval to adopt the IRBA for the corporate small business asset sub-class; and
- (c) $K_{df, rp}$ by applying the formula¹⁶⁸ set out in paragraphs 7.4.35, 7.4.36 or 7.4.37 (depending on whether the purchased receivables meet the criteria for categorisation under the residential mortgage asset sub-class, QRRE asset sub-class or other retail exposures asset sub-class), subject to the Reporting Bank receiving approval to adopt the IRBA for the applicable retail asset sub-class. If the purchased receivables meet the criteria for categorisation under the residential mortgage asset sub-class or QRRE asset sub-class but the Reporting Bank has not received approval to adopt the IRBA for those asset sub-classes, the Reporting Bank shall calculate $K_{df, rp}$ by applying the formula set out in paragraph 7.4.37, subject to the Reporting Bank receiving approval to adopt the IRBA for the other retail exposures asset sub-class.

7.4.46 Subject to approval by the Authority, a Reporting Bank may calculate $K_{df, cp}$ and $K_{df, sp}$ using a top-down approach as set out in Annex 7W of this Part. The top-down approach allows the Reporting Bank to derive estimates of IRBA parameters on a pooled basis. A Reporting Bank seeking approval from the Authority to use the top-down approach shall satisfy the following conditions:

- (a) the receivables are purchased from third party sellers, and not from related corporations or affiliates of the Reporting Bank, and as such the Reporting Bank has not originated the receivables either directly or indirectly;

[MAS Notice 637 (Amendment No. 2) 2014]

- (b) the receivables are generated on an arm's-length basis between the seller and the obligor. Inter-company accounts receivable and receivables subject to contra-accounts¹⁶⁹ between firms that buy and sell to each other are not eligible for the top-down treatment;

¹⁶⁷ For a hybrid pool containing a mix of purchased receivables that can be categorised under two or more asset sub-classes and where the Reporting Bank cannot separate the purchased receivables by asset sub-class, the Reporting Bank shall apply the formula for the asset sub-class that results in the highest K_{df} for the purpose of calculating the credit risk-weighted exposure amount for the pool pursuant to Sub-division 4 of Division 1 of this Part.

¹⁶⁸ The estimates of PD and LGD shall be derived without regard to any assumption of recourse or other support (e.g. guarantees) from the seller or other parties.

¹⁶⁹ Contra-accounts involve a customer buying from and selling to the same firm. The risk is that debts may be settled through payments in kind rather than cash. Invoices between the companies may be offset against each other instead of being paid. This practice can defeat a security interest when challenged in court.

- (c) the Reporting Bank has a claim on all proceeds from the pool of receivables or a pro-rata interest in the proceeds.¹⁷⁰ The existence of full or partial recourse to the seller is allowed as long as the cash flows from the purchased receivables are the primary protection against default risk as determined in accordance with paragraphs 2.10 to 2.15 of Annex 7W of this Part and the Reporting Bank meets the eligibility criteria in this Sub-division and Annex 7W of this Part, and the operational requirements in Section 2 of Annex 7W of this Part;
- (d) the Reporting Bank demonstrates to the satisfaction of the Authority that the pool of receivables is sufficiently diversified^{170A};
- (e) the Reporting Bank has earmarked the purchased receivables for securitisation or sale to be completed within six months from the date of purchase; and
- (f) the Reporting Bank meets the requirements in Annex 7W of this Part.

7.4.47 If a Reporting Bank fails to comply with the conditions set out in paragraph 7.4.46 after approval has been granted for it to adopt the top-down approach, the Authority may revoke its approval for the Reporting Bank to use the top-down approach, in which case the Reporting Bank shall calculate $K_{df, cp}$, $K_{df, sp}$ or both in accordance with paragraph 7.4.45. Actions taken by the Authority may include subjecting the Reporting Bank to higher bank-specific capital requirements pursuant to section 10(3) of the Banking Act.

Calculation of Capital Requirements for Dilution Risk, K_{dil}

7.4.48 A Reporting Bank shall calculate $K_{dil, cp}$, $K_{dil, sp}$ and $K_{dil, rp}$, regardless of whether it is using the top-down approach, using the following formula:

$$\begin{aligned} \text{Correlation } (R_{dil}) &= 0.12 \times (1 - \text{EXP}(-50 \times PD_{dil})) / (1 - \text{EXP}(-50)) + \\ &\quad 0.24 \times [1 - (1 - \text{EXP}(-50 \times PD_{dil})) / (1 - \text{EXP}(-50))] \\ \text{Maturity adjustment } (b) &= (0.11852 - 0.05478 \times \ln(PD_{dil}))^2 \\ \text{Capital requirement } (K_{dil, cp}, K_{dil, sp} \text{ or } K_{dil, rp}) &= [LGD_{dil} \times N[(1 - R_{dil})^{-0.5} \times G(PD_{dil}) + (R_{dil}/(1 - R_{dil}))^{0.5} \times G(0.999)] \\ &\quad - PD_{dil} \times LGD_{dil}] \times (1 - 1.5 \times b)^{-1} \times (1 + (M_{dil} - 2.5) \times b) \end{aligned}$$

where -

¹⁷⁰ Claims on tranches of the proceeds (first loss position, second loss position, etc.) shall be regarded as securitisation.

^{170A} In assessing whether to grant approval for a Reporting Bank to use the top-down approach as set out in Annex 7W of this Part to calculate $K_{df, cp}$ and $K_{df, sp}$ in accordance with paragraphs 7.4.42 to 7.4.45, a criteria considered by the Authority is whether there is concentration in any single receivable or group of receivables (to a group of underlying obligors or guaranteed by the same seller) that is more than 3.5% of the EAD of the pool of purchased corporate receivables or purchased corporate small business receivables. This does not preclude the Authority from applying additional concentration limits.

- (a) "PD_{dil}" refers to the estimated one-year EL arising from dilution risk expressed as a percentage of the amount of receivables in the relevant pool. This estimate shall be calculated without regard to any assumption of recourse or other support (e.g. guarantees) from the seller or third-party guarantors;
- (b) LGD_{dil} = 100%; and
- (c) "M_{dil}" is -
 - (i) the average effective maturity calculated in accordance with Annex 7Z of this Part for the relevant pool of receivables; or
 - (ii) one year if the Reporting Bank demonstrates to the satisfaction of the Authority that the Reporting Bank is able to monitor the dilution risk and has a track record of resolving incidents of dilution or dilution events within one year.

7.4.49 Where K_{dil, cp}, K_{dil, sp} or K_{dil, rp} for any IRBA exposure calculated in accordance with paragraph 7.4.48 above is less than 0, the Reporting Bank shall apply K_{dil} = 0 for the purposes of calculating K_{cp}, K_{sp} or K_{rp}, as the case may be, for that IRBA exposure pursuant to paragraphs 7.4.42, 7.4.43 or 7.4.44.

7.4.50 Subject to approval by the Authority, a Reporting Bank may calculate K_{dil, cp}, K_{dil, sp} and K_{dil, rp} using a top-down approach which allows the Reporting Bank to derive estimates of IRBA parameters on a pooled basis. A Reporting Bank seeking approval from the Authority to use the top-down approach shall satisfy the conditions set out in paragraph 7.4.46.

7.4.51 If a Reporting Bank fails to comply with the conditions set out in paragraph 7.4.50 after approval has been granted for it to adopt the top-down approach, the Authority may revoke its approval for the Reporting Bank to use the top-down approach. The Reporting Bank may also be subjected to higher bank-specific capital requirements pursuant to section 10(3) of the Banking Act, or other actions by the Authority.

Treatment of purchase price discounts for receivables

7.4.51A Where the purchase price of the purchased receivables reflect a discount that provides first loss protection for default losses, dilution losses or both, and a portion of such a purchase price discount is to be refunded to the seller, ~~a Reporting Bank may treat the amount to be refunded as first loss protection as set out in Sub-division 5 of Division 6 of this Part.~~ based on the performance of the receivables –

- (a) a Reporting Bank which has purchased the receivables may treat the amount to be refunded as first loss protection and may calculate the capital requirements for the purchased receivables in accordance with Sub-division 4 of Division 6 of this Part; and
- (b) a Reporting Bank which has sold the receivables and provided the refundable purchase price discount shall treat the refundable amount as a first loss position and shall calculate the capital requirements for the

purchase price discount in accordance with Sub-division 4 of Division 6 of this Part.

7.4.51AA Non-refundable purchase price discounts for receivables do not affect either the EL provision calculation in Sub-division 14 of this Division or the calculation of risk-weighted exposures.

7.4.51B Where collateral or partial guarantees obtained on the purchased receivables provide first loss protection, and these collateral or partial guarantees cover default losses, dilution losses or both, a Reporting Bank may treat them as first loss protection ~~as set out in Sub-division 5 of Division 6 of this Part, and may calculate the capital requirements for the purchased receivables in accordance with Sub-division 4 of Division 6 of this Part.~~ When the collateral or partial guarantees cover both default losses and dilution losses, a Reporting Bank using the ~~SF-SEC-IRBA~~ shall calculate the exposure-weighted average LGD in accordance with paragraph ~~7.6.37s 1.19 to 1.21 of Annex 7AG of this Part.~~

Amendments to Sub-division 10 (Treatment of Credit Protection)

Sub-division 10: Treatment of Credit Protection

Treatment of Eligible Credit Protection Bought

7.4.52 A Reporting Bank which has bought eligible credit protection for an IRBA exposure categorised under the IRBA wholesale asset class for which it is using the F-IRBA to calculate the credit risk-weighted exposure amount may recognise the effects of CRM of the eligible credit protection as follows:

- (a) break down the IRBA exposure into -
 - (i) a protected portion with EAD equal to the notional amount of the eligible credit protection¹⁷¹; and
 - (ii) an unprotected portion with EAD equal to the EAD of the IRBA exposure less the notional amount of the eligible credit protection; and
- (b) calculate the credit risk-weighted exposure amount pursuant to Sub-division 4 of Division 1 of this Part as follows:
 - (i) for the protected portion -
 - (A) use the double default framework in accordance with the requirements set out in Annex 7G of this Part¹⁷²;
 - (B) use the following:

¹⁷¹ A Reporting Bank shall treat the protection portion of an IRBA exposure which has a currency mismatch or a maturity mismatch in accordance with Annex 7F of this Part.

¹⁷² Where a Reporting Bank has bought eligible credit protection to hedge dilution risk arising from an IRBA exposure within the IRBA eligible purchased receivables asset class, it may also recognise the effects of CRM under the double default framework provided the requirements in Annex 7G of this Part are complied with.

- (I) the formula for calculating K that is applicable to the eligible protection provider;
 - (II) the PD associated with the obligor grade to which the eligible protection provider is assigned or some grade between the obligor grades to which the underlying obligor and the eligible protection provider are assigned if the Reporting Bank considers appropriate, that is estimated in accordance with Annex 7AB of this Part;
 - (III) the LGD of the underlying transaction or the LGD applicable to the credit protection taking into account seniority and any collateralisation of the credit protection; or
- (C) in the case where the Reporting Bank has bought from an eligible protection provider a credit default swap which is an eligible credit protection and cleared through a CCP, apply a risk weight of 2% if the credit default swap constitutes a CCP trade exposure in accordance with paragraphs 2.1 or 2.5 of Annex 7AJ, or 4% if the credit default swap constitutes a CCP trade exposure in accordance with paragraph 2.6 of Annex 7AJ; and
- (ii) for the unprotected portion, use the following:
- (A) the formula for calculating K that is applicable to the underlying obligor;
 - (B) the PD associated with the obligor grade to which the underlying obligor is assigned and estimated in accordance with Annex 7AB of this Part;
 - (C) the LGD of the underlying transaction.

[MAS Notice 637 (Amendment No. 2) 2014]

7.4.53 Notwithstanding paragraph 7.4.52(b), a Reporting Bank shall apply a 1250% risk weight to any materiality threshold below which no payment will be made by the protection provider in the event of loss on an IRBA exposure as such threshold is equivalent to a retained first loss position.

7.4.54 A Reporting Bank which has eligible credit protection for an IRBA exposure for which it is using the A-IRBA or IRBA for the IRBA retail asset class to calculate the credit risk-weighted exposure amount may recognise the effects of CRM of the eligible credit protection by -

- (a) adopting the treatment set out in paragraph 7.4.52 above; or
- (b) adjusting either its estimates of PD or LGD. Any adjustment to estimates of PD or LGD shall -

- (i) be done in a consistent manner for a given type of credit protection; and
- (ii) not recognise the effect of double default, i.e. the adjusted credit risk-weighted exposure amount shall not be less than that of a comparable direct exposure to the eligible protection provider.

7.4.55 A Reporting Bank shall apply the relevant provisions in Annex 7H of this Part for the purpose of determining the protected portion in cases of proportional cover, principal-only cover, partially eligible credit derivatives, tranching cover and basket credit derivatives.

7.4.56 In the case of an IRBA exposure within the IRBA eligible purchased receivables asset class, a Reporting Bank shall consider the availability of credit protection for default risk and dilution risk separately.¹⁷³

Treatment of Credit Protection Sold

7.4.57 A Reporting Bank which has sold unfunded credit protection acquires exposure to the reference asset. If such exposure is an IRBA exposure, the Reporting Bank shall calculate the credit risk-weighted exposure amount for the exposure pursuant to Sub-division 4 of Division 1 of this Part using the formula for calculating K that is applicable to the obligor of the reference asset.

7.4.58 If the unfunded credit protection has more than one reference asset, the credit risk-weighted exposure amount for the credit protection is the sum of the credit risk-weighted exposure amounts in respect of each reference asset calculated using the relevant formulae for calculating K that are applicable to the obligors of the respective reference assets.

7.4.59 A Reporting Bank which has sold funded credit protection acquires exposure to both the reference asset and the protection buyer. If such exposures are IRBA exposures, the Reporting Bank shall calculate the credit risk-weighted exposure amount for the credit protection as the sum of -

- (a) the credit risk-weighted exposure amount for the exposure to the reference asset calculated in accordance with paragraphs 7.4.57 and 7.4.58 above, as applicable; and
- (b) the credit risk-weighted exposure amount for the exposure to the protection buyer, using -

¹⁷³ For this purpose -

- (a) if a guarantee covers both default risk and dilution risk, a Reporting Bank shall substitute the capital requirement for an exposure to the guarantor in place of the total capital requirement for default risk and dilution risk applicable to the pool of receivables.
- (b) if a guarantee covers only default risk or dilution risk, but not both, a Reporting Bank shall substitute the capital requirement for an exposure to the guarantor in place of the capital requirement for the corresponding risk component that is covered (default risk or dilution risk). The capital requirement for the other component shall then be added.
- (c) if a guarantee covers only a portion of the default risk or dilution risk, the capital requirements of the uncovered portion shall be added to the capital requirement of the covered portion.

- (i) EAD = the carrying amount of the collateral placed with the protection buyer; and
- (ii) the formula for calculating K that is applicable to the protection buyer.

[MAS Notice 637 (Amendment) 2014]

7.4.60 The capital requirement for the credit protection calculated in accordance with paragraphs 7.4.58 and 7.4.59 shall not exceed the notional amount of the credit protection, i.e. the maximum possible payout under the credit protection.

7.4.61 Where a Reporting Bank has provided credit protection (whether funded or unfunded) through a proportionate structure, i.e. where the maximum possible payout in respect of any particular reference asset is capped at a pre-determined proportion of the notional amount of the credit protection, the Reporting Bank shall distinguish individual sub-exposures equal to the proportionate amount of credit protection in respect of each reference asset for the purposes of calculating the credit risk-weighted exposure amount applicable to the credit protection sold.

7.4.62 Where a Reporting Bank has provided credit protection for a basket of reference exposures through a first-to-default credit derivative, the Reporting Bank shall calculate the credit risk-weighted exposure amount applicable to the credit protection sold ~~as follows~~

-

- ~~(a) where the credit derivative has an external credit assessment by a recognised ECAI, apply the capital treatment as set out in paragraph 7.6.19 and 7.6.20 of this Part; and~~
- ~~(b) where the credit derivative is unrated, apply the capital treatment as set out in paragraph 7.6.25 of this Part.~~

by aggregating the risk weights that would be assigned to the reference exposures, subject to a cap of 1250%, and multiplying the aggregate with the nominal amount of the protection provided by the credit derivative.

7.4.62A Where a Reporting Bank has provided credit protection for a basket of reference exposures through a second-to-default credit derivative, the Reporting Bank shall calculate the credit risk-weighted exposure amount applicable to the credit protection sold ~~as follows~~

-

- ~~(a) where the credit derivative has an external credit assessment by a recognised ECAI, apply the capital treatment as set out in paragraph 7.6.19 and 7.6.20 of this Part; and~~
- ~~(b) where the credit derivative is unrated, apply the capital treatment as set out in paragraph 7.6.26 of this Part.~~

by applying the treatment referred to in paragraph 7.4.62, except that in aggregating the risk weights, the risk weights assigned to the reference exposure with the lowest credit risk-weighted exposure amount may be excluded.

Division 5: Equity Exposures

Amendments to Sub-division 5 (Equity Investments in Funds)

Sub-division 5: Equity Investments in Funds

7.5.61 A Reporting Bank shall calculate the credit risk-weighted exposure amount of its equity investments in funds held in the banking book using the methods set out in paragraphs 7.5.62 to 7.5.70, which vary in their risk sensitivity and conservatism, and in accordance with the following hierarchy:

- (a) the look-through approach ("LTA");
- (b) the mandate-based approach ("MBA"); or
- (c) the fall-back approach ("FBA").

7.5.61A For the purpose of this Sub-division, "funds" includes collective investment schemes and closed-end funds as defined in the Securities and Futures Act (Chapter 289), except for real estate investment trusts as defined under section 295A of the Securities and Futures Act (Chapter 289) and business trusts as defined under the Business Trust Act (Chapter 31A). A Reporting Bank's holdings of units in real estate investment trusts as defined under section 295A of the Securities and Futures Act (Chapter 289) and business trusts as defined under the Business Trust Act (Chapter 31A) shall be treated as holdings in a single equity security for the purpose of risk-weighting.

LTA

7.5.62 A Reporting Bank shall use the LTA to calculate the credit risk-weighted exposure amount of its equity investments in funds held in the banking book if the following conditions are satisfied:

- (a) the Reporting Bank is provided sufficient and frequent information regarding the underlying exposures of the fund^{195AB}; and
- (b) the Reporting Bank has ensured that such information is verified by an independent third party, such as the depository or custodian bank, or where applicable, the management company.

7.5.63 A Reporting Bank using the LTA shall risk-weight all underlying exposures of a fund as if the exposures were directly held by the Reporting Bank in accordance with Divisions 2, 3, 4, 5 and 6 of this Part, whichever is applicable. This includes any underlying exposure arising from the fund's derivative transactions, where the underlying exposure is assigned a risk weight in accordance with Divisions 3, 4, 5 and 6 of this Part and Part VIII, whichever is applicable, and the associated pre-settlement counterparty exposures. For the exposure arising from a fund's derivative transactions, the Reporting Bank is not

^{195AB} The Reporting Bank shall ensure that the frequency of financial reporting of the fund is the same as, or more frequent than the frequency of financial reporting of the Reporting Bank and the granularity of the financial information of the fund is sufficient for the Reporting Bank to calculate the corresponding risk weights. For the purposes of this paragraph, an external audit of the information is not required.

required to calculate the CVA risk capital requirements as set out in Annex 7AI. The Reporting Bank shall multiply the pre-settlement counterparty exposure amounts arising from a fund's derivative transactions by a factor of 1.5 before applying the risk weight assigned to the counterparty in accordance with Divisions 3, 4, 5 and 6 of this Part, except where the Reporting Bank is not required to calculate the CVA risk capital requirements as set out in Section 1 of Annex 7AI. An example of the calculation of the credit risk-weighted exposure amount of its equity investments in funds held in the banking book using the LTA is set out in Section 1 of Annex 7AK.

7.5.64 Where a Reporting Bank uses the SA(CR), SA(EQ), ~~SEC-ERBA~~ or ~~SA(SE)SEC-SA~~ to calculate the credit risk-weighted exposure amount for the underlying exposures of funds if the exposures were directly held by the Reporting Bank, the Reporting Bank using the LTA shall calculate the credit risk-weighted exposure amount of its equity investments in funds held in the banking book using the SA(CR), SA(EQ), ~~SEC-ERBA~~ or ~~SA(SE)SEC-SA~~ in accordance with Divisions 2, 3, 5 and 6 of this Part, whichever is applicable.

7.5.65 Where a Reporting Bank uses the IRBA, IRBA(EQ) or ~~IRBA(SE)SEC-IRBA~~ to calculate the credit risk-weighted exposure amount for the underlying exposures of funds if the exposures were directly held by the Reporting Bank, the Reporting Bank using the LTA shall:

- (a) calculate the IRBA parameters i.e. PD and, where applicable, LGD and EAD, associated with the underlying exposures of funds and shall calculate the credit risk-weighted exposure amount of its equity investments in funds held in the banking book using the IRBA, IRBA(EQ), or ~~IRBA(SE)SEC-IRBA~~ in accordance with Divisions 2, 4, 5 and 6 of this Part^{195AC}, whichever is applicable;
- (b) where the Reporting Bank is unable to calculate the IRBA parameters i.e. PD and, where applicable, LGD and EAD, associated with the underlying exposures of funds (e.g. where the Reporting Bank is unable to assign the necessary IRBA parameters to the underlying exposures in a manner consistent with its own underwriting criteria) -
 - (i) calculate the credit risk-weighted exposure amount of such underlying exposures in its equity investments in funds held in the banking book using the SA(CR) in accordance with Divisions 2 and 3 of this Part;
 - (ii) for underlying equity exposures of funds, calculate the credit risk-weighted exposure amount for such exposures using the simple risk weight method set out in paragraphs 7.5.24 to 7.5.26; and
 - (iii) for underlying securitisation exposures of funds, calculate the credit risk-weighted exposure amount for such exposures in accordance with the ~~RBM as described in Annex 7A~~~~SEC-ERBA or SEC-SA, according to~~

^{195AC} ~~A Reporting Bank adopting the IRBA may, with the approval of the Authority, use the SA(CR), SA(EQ) or SA(SE) to calculate the credit risk-weighted exposure amounts for certain exposures in accordance with paragraphs 4.1 to 4.8 of Annex 7AC. For such underlying exposures in the fund, the Reporting Bank shall calculate the credit risk-weighted exposure amount using the SA(CR), SA(EQ) or SA(EQ) in accordance with Divisions 2, 3, 5 and 6 of this Part, whichever is applicable.~~

the hierarchy of approaches determined by paragraphs 7.6.14 to 7.6.16; or

(c) with the approval of the Authority, use the SA(CR), SA(EQ), SEC-ERBA or SEC-SA to calculate the credit risk-weighted exposure amounts for certain exposures in accordance with paragraphs 4.1 to 4.8 of Annex 7AC. For such underlying exposures in the fund, the Reporting Bank shall calculate the credit risk-weighted exposure amount using the SA(CR), SA(EQ), SEC-ERBA or SEC-SA in accordance with Divisions 2, 3, 5 and 6 of this Part, whichever is applicable.

7.5.66 A Reporting Bank may rely on third party calculations for determining the risk weights to be applied to its equity investments in funds held in the banking book, if it does not have adequate data or information to perform its own calculations, subject to the following conditions:

- (a) the Reporting Bank shall ensure that the third party applies the risk weights under the SA(CR), SA(EQ), SEC-ERBA or SA(SE)SEC-SA in accordance with Divisions 3, 5 and 6 of this Part, whichever is applicable, to the underlying exposures of the funds;
- (b) where the Reporting Bank is using the IRBA(EQ) to calculate the credit risk-weighted exposure amount for its equity exposures, the Reporting Bank shall ensure that the third party applies the credit risk-weighted exposure amount calculated in accordance with the simple risk weight method set out in paragraphs 7.5.24 to 7.5.26 to the underlying equity exposures of the funds;
- (c) where the Reporting Bank is using the IRBA(SE)SEC-IRBA to calculate the credit risk-weighted exposure amounts for its securitisation exposures, the Reporting Bank shall ensure that the third party applies the credit risk-weighted exposure amount calculated in accordance with the RBM as set out in Sub-division 4 of Division 6 of this Part and Annex 7AE to the underlying securitisation exposures of the funds; and
- (d) the Reporting Bank shall ensure that, in all cases, the applicable risk weights applied by the third party are 1.2 times higher than the risk weights that would have been applicable if the exposures of the funds were held directly by the Reporting Bank.^{195AD}

MBA

7.5.67 Where a Reporting Bank does not satisfy the conditions under paragraph 7.5.62 for the use of the LTA, the Reporting Bank may use the MBA to calculate the credit risk-weighted exposure amount of its equity investments in funds held in the banking book if it is able to determine the credit risk-weighted exposure amount in the manner set out in paragraph 7.5.68 below.

^{195AD} For instance, where the LTA is performed by a third party, the applicable risk weight applied by the third party to an exposure that is subject to a 20% risk weight under the SA(CR) if the exposures were held directly by the Reporting Bank, is 24% (i.e. 1.2*20%).

7.5.68 Under the MBA, the Reporting Bank shall determine the credit risk-weighted exposure amount for its equity investments in the fund by using the information contained in a fund's mandate, in the national regulations^{195AE} governing such investment funds or in other disclosures of the fund.

7.5.69 A Reporting Bank using the MBA^{195AF} shall calculate the credit risk-weighted exposure amount for its equity investment in a fund as the sum of –

- (a) the credit risk-weighted exposure amount for the balance sheet exposures of the fund using the SA(CR), SA(EQ), [SEC-ERBA](#) or [SA\(SE\)SEC-SA](#) in accordance with Divisions 2, 3, 5 and 6 of this Part, whichever is applicable. The Reporting Bank shall assume that the fund first invests, to the maximum extent allowed under the fund's mandate, in the asset class attracting the highest capital requirement, and then continues making investments in descending order until the maximum total investment level is reached. If more than one risk weight can be applied to a given exposure, the Reporting Bank shall apply the maximum risk weight^{195AG};
- (b) the credit risk-weighted exposure amount for the exposures arising from the fund's derivative transactions or off-balance sheet exposures of the fund, calculated by applying the risk weights associated with the underlying of the fund's derivative transaction positions or the off-balance sheet exposures to their notional amounts, where the underlying risk of the fund's derivative transaction or off-balance sheet item receives a risk-weighting treatment in accordance with Divisions 3, 4, 5 and 6 of this Part and Part VIII^{195AH}, whichever is applicable;
- (c) the credit risk-weighted exposure amount for the pre-settlement counterparty exposures associated with the fund's derivative transactions calculated in accordance with the SA-CCR set out in Annex 70 and by applying the risk weights under SA(CR) assigned for the counterparty in accordance with Division 3 of this Part. Where the replacement cost is unknown, the Reporting Bank shall calculate the pre-settlement counterparty exposure amount in a conservative manner by using the notional amount as a proxy for the replacement cost. Where the supervisory factor for the calculation of the amount for potential future exposure is unknown, the Reporting Bank shall apply the maximum

^{195AE} For the purpose of this Sub-Division, "national regulations" refers to laws, regulations, rulings and treaties of a country.

^{195AF} To ensure that all underlying risks, including counterparty credit risk, are taken into account, and that the credit risk-weighted exposure amount calculated for the Reporting Bank's equity investments in funds held in the banking book using the MBA is not less than the credit risk-weighted exposure amount calculated using the LTA, the credit risk-weighted exposure amount for its equity investment in a fund calculated using the MBA is the sum of items in paragraphs 7.5.69 (a) to (e).

^{195AG} For instance, a Reporting Bank shall apply a risk weight of 150% for underlying exposures of funds in corporate bonds, in the case where there are no ratings restrictions in the fund's mandate.

^{195AH} The Reporting Bank shall use the full notional amount of the derivative position if the underlying is unknown. The Reporting Bank shall use the maximum notional amount of derivatives allowed under the mandate if the notional amount of the derivative position is unknown.

supervisory factor set out in Annex 70.^{195AI,195AJ} The Reporting Bank shall apply the risk weight under SA(CR) assigned for the counterparty to the sum of the replacement cost and the amount for potential future exposure. For the underlying exposure arising from a fund's derivative transactions, the Reporting Bank is not required to calculate the CVA risk capital requirements as set out in Annex 7AI. The Reporting Bank shall multiply the pre-settlement counterparty exposure amounts arising from a fund's derivative transactions by a factor of 1.5 before applying the risk weight assigned to the counterparty in accordance with Divisions 3, 4, 5 and 6 of this Part, whichever is applicable, except where the Reporting Bank is not required to calculate the CVA risk capital requirements as set out in Section 1 of Annex 7AI;

- (d) where the Reporting Bank is using the IRBA(EQ) to calculate the credit risk-weighted exposure amount for its equity exposures, the Reporting Bank shall calculate the credit-risk weighted exposure amount by applying the simple risk weight method set out in paragraphs 7.5.24 to 7.5.26 to the underlying equity exposures of the fund; and
- (e) where the Reporting Bank is using the ~~IRBA(SE)~~SEC-IRBA to calculate the credit risk-weighted exposure amounts for its securitisation exposures, the Reporting Bank shall calculate the credit risk-weighted exposure amount ~~applying the RBM as set out in Division 6 of this Part and Annex 7AE to of~~ the underlying securitisation exposures of the fund in accordance with Sub-division 4 of Division 6 of this Part.

An example of the calculation of the credit risk-weighted exposure amount of its equity investments in funds held in the banking book using the MBA is set out in Section 2 of Annex 7AK.

FBA

7.5.70 Where a Reporting Bank is unable to use the LTA or MBA, the Reporting Bank shall use the FBA. Under the FBA, the Reporting Bank shall apply a 1250% risk weight to the amount of its equity investments in funds held in the banking book.

Treatment of funds that invest in other funds

7.5.71 Where a Reporting Bank has an investment in a fund (for example, Fund A), which it has identified using either the LTA or MBA, and that fund (that is, Fund A) itself has an investment in another fund (for example, Fund B), the Reporting Bank may apply the LTA, MBA or FBA to determine the credit risk-weighted exposure amount for the investment of the first fund in the other fund (that is, Fund A's investment in Fund B). For all subsequent layers (for example, Fund B's investments in Fund C and so forth), the Reporting Bank shall use the LTA to determine the credit risk-weighted exposure amount

^{195AI} This corresponds to the highest supervisory factor specified in Table 70-1 of Annex 70.

^{195AJ} If both the replacement cost and add-on components are unknown, the Reporting Bank shall apply a total multiplication factor of 1.15 to the notional amount for the calculation of the pre-settlement counterparty exposures associated with the fund's derivative transactions.

for the investment in the other funds (for example, Fund C), subject to the condition that the Reporting Bank also used the LTA to determine the credit risk-weighted exposure amount for its equity investment in the fund at the previous layer (for example, Fund B). In all other cases, the Reporting Bank shall use the FBA.

Partial use of an approach

7.5.72 A Reporting Bank may use any combination of the three methods i.e. LTA, MBA or FBA, when determining the credit risk-weighted exposure amount for an equity investment in an individual fund, provided that the conditions set out in paragraphs 7.5.61 to 7.5.71 are satisfied.

Leverage adjustment

7.5.73 Where the Reporting Bank uses the LTA or MBA to calculate the credit risk-weighted exposure amount of its equity investments in funds, the Reporting Bank shall apply a leverage adjustment to the average risk weight of each fund, subject to a cap of 1250%, using the following formula^{195AK}:

$$\text{Credit RWE}_{\text{investment}} = \max[\text{Avg RW}_{\text{fund}} * \text{Lvg}, 1250\%] * \text{Equity Investment}$$

where –

- (a) “Credit RWE_{investment}” refers to the credit risk-weighted exposure amount for the equity investment in the fund;
- (b) “Avg RW_{fund}” refers to the average risk weight of the fund, which is calculated by dividing the total credit risk-weighted exposure amount of the fund by the total assets of the fund;
- (c) “Lvg” refers to the leverage of the fund, which is defined as the ratio of total assets to total equity, except in the case of a Reporting Bank using the MBA, where leverage will be taken into account by using the maximum financial leverage permitted in the fund’s mandate or in the national regulation governing the fund; and
- (d) “Equity Investment” refers to the value of the exposure amount of the equity investment in the fund under the LTA or MBA as determined in accordance with Sub-division 2 of Division 2 of this Part.

[MAS Notice 637 (Amendment) 2016]

^{195AK} The effect of the leverage adjustments depends on the underlying riskiness of the portfolio (i.e. the average risk weight of the fund). The formula can therefore be re-written as: $\text{RWA}_{\text{investment}} = \text{RWE}_{\text{fund}} * \text{percentage of shares}$. An example of the calculation of the leverage adjustment is set out in Section 3 of Annex 7AK.

The previous Division 6 is deleted and substituted with the following Division 6

Division 6: Securitisation

Sub-division 1: Introduction

7.6.1 A Reporting Bank shall apply the provisions of this Division for determining regulatory capital requirements on exposures relating to traditional and synthetic securitisation or similar structures that contain features common to both. As securitisations may be structured in many different ways, the Reporting Bank shall determine the capital treatment of a securitisation on the basis of its economic substance rather than its legal form.

7.6.2 A Reporting Bank shall consult the Authority if it is uncertain whether a given transaction should be considered a securitisation, and whether a given exposure should be considered a securitisation exposure or a resecuritisation exposure.

Sub-division 2: Requirements for the Recognition of Risk Transference

7.6.3 This Sub-division is applicable only to securitised exposures held in the banking book.

Requirements for Traditional Securitisation

7.6.4 A Reporting Bank which is an ABCP programme sponsor or originator in a traditional securitisation may exclude securitised exposures from the calculation of credit RWA only if all of the requirements in Section 1 of Annex 7AD of this Part have been complied with. A Reporting Bank meeting these requirements shall still hold regulatory capital against any securitisation exposures it retains.

Requirements for Synthetic Securitisation

7.6.5 Subject to paragraphs 7.6.86 and 7.6.87, a Reporting Bank which is an ABCP programme sponsor or originator in a synthetic securitisation may recognise the effects of CRM of the synthetic securitisation in its calculation of credit RWA only if –

- (a) all of the requirements in Section 2 of Annex 7AD of this Part have been complied with; and
- (b) the effects of CRM are obtained through eligible credit protection or eligible financial collateral, or both, in accordance with Annex 7F of this Part.

7.6.6 A Reporting Bank meeting the conditions in paragraph 7.6.5 shall still hold regulatory capital against any securitisation exposures it retains.

Sub-division 3: Treatment of Securitisation Exposures

7.6.7 A Reporting Bank shall include in its calculation of credit RWA all of its securitisation exposures held in the banking book.

7.6.8 For a Reporting Bank to apply the SEC-IRBA, SEC-ERBA or SEC-SA to its securitisation exposures held in the banking book, the Reporting Bank shall –

- (a) have, on an on-going basis, a comprehensive understanding of the risk characteristics of its individual securitisation exposures, whether on- or off-balance sheet, as well as the risk characteristics of the pools underlying its securitisation exposures;
- (b) be able to access performance information on the pools underlying its securitisation exposures on an on-going basis and in a timely manner. Such information may include exposure type, percentage of loans 30, 60 and 90 days past due, default rates, prepayment rates, loans in foreclosure, property type, occupancy, average credit score or other measures of creditworthiness, average loan-to-value ratio, and industry and geographic diversification. For resecuritisations, the Reporting Bank shall have information on the underlying securitisation tranches such as the issuers' names and credit quality and the characteristics and performance of the pools underlying the securitisation tranches; and
- (c) have a thorough understanding of all structural features of a securitisation transaction that would materially impact the performance of the Reporting Bank's exposures to the transaction, such as the contractual waterfall and waterfall-related triggers, credit enhancements, liquidity enhancements, market value triggers, and deal-specific definitions of default.

7.6.9 A Reporting Bank which is an originator may offset a securitisation exposure risk-weighted at 1250% by reducing the securitisation exposure amount by the amount of their specific allowances on underlying assets of that transaction and non-refundable purchase price discounts on such underlying assets.

7.6.10 A Reporting Bank shall deduct any increase in equity resulting from a securitisation, such as that associated with expected future margin income resulting in a gain-on-sale that is recognised as equity, and any credit-enhancing interest-only strips in the calculation of CET1 Capital, in accordance with paragraph 6.1.3(f) and 6.1.3(fa) of Part VI.

Treatment of Overlapping Exposures

7.6.11 Notwithstanding paragraph 7.6.7 above, where a Reporting Bank is able to verify that it can preclude any loss for a securitisation exposure (exposure B) under all circumstances by fulfilling its obligations with respect to another securitisation exposure (exposure A), i.e. exposure A overlaps exposure B in all circumstances^{195AL}, the Reporting

^{195AL} For example, where a Reporting Bank provides full credit support to some notes and holds a portion of these notes, its full credit support obligation precludes any loss from its exposure to the notes.

Bank may exclude exposure B from the calculation of credit RWA. A Reporting Bank may split or expand its exposures^{195B} to arrive at an overlap for the purpose of calculation of credit RWA. The Reporting Bank may also recognise overlap between specific risk capital charges for exposures in the trading book and capital charges for exposures in the banking book, provided that the Reporting Bank is able to calculate and compare the capital charges for the relevant exposures.

Hierarchy of Approaches

7.6.12 Subject to Sub-division 7 of this Division and paragraph 7.6.13, a Reporting Bank shall use the SEC-IRBA to calculate the credit risk-weighted exposure amount for a securitisation exposure of an IRB pool.

7.6.13 Where the Authority prohibits a Reporting Bank from using the SEC-IRBA for a particular IRB pool in the case of particular structures and transactions, such as transactions with highly complex loss allocations, tranches whose credit enhancement could be eroded for reasons other than portfolio losses, and tranches of portfolios with high internal correlations, a Reporting Bank must not use the SEC-IRBA to calculate the credit risk-weighted exposure amount for a securitisation exposure of that IRB pool.

7.6.14 A Reporting Bank shall use the SEC-ERBA to calculate the credit risk-weighted exposure amount for a securitisation exposure of an SA pool if –

- (a) the exposure has an external credit assessment that meets the operational requirements for the use of external credit assessments in Annex 7AE;
- (b) the exposure has an inferred rating that meets the operational requirements for the use of inferred ratings in Annex 7AE; or
- (c) in the case of an unrated securitisation exposure within an ABCP programme, the Reporting Bank uses the IAA set out in Annex 7AF, as provided in paragraph 7.6.15.

7.6.15 Subject to the approval of the Authority, a Reporting Bank may use the IAA set out in Annex 7AF to calculate the credit risk-weighted exposure amount in accordance with the SEC-ERBA for an unrated securitisation exposure of an SA pool within an ABCP programme.

7.6.16 A Reporting Bank which is not able to or not permitted to use the SEC-ERBA set out in paragraph 7.6.14 to calculate the credit risk-weighted exposure amount for a securitisation exposure of an SA pool, shall use the SEC-SA to do so.

7.6.17 A Reporting Bank shall apply a risk weight of 1250% to a securitisation exposure to which the SEC-IRBA, SEC-ERBA and SEC-SA cannot be applied.

^{195B} That is, splitting exposures into portions that overlap with another exposure held by the Reporting Bank and other portions that do not overlap; and expanding exposures where for capital purposes, assuming that obligations with respect to one of the overlapping exposures are larger than those established contractually, for instance, by expanding either the trigger events to exercise the facility and/or the extent of the obligation.

Sub-division 4: Internal Ratings-Based Approach (SEC-IRBA)

7.6.18 A Reporting Bank using the SEC-IRBA to calculate capital requirements for a securitisation exposure to an IRB pool shall calculate the following inputs: K_{IRB} , tranche attachment point and detachment point, effective number of exposures and loss-given-default of the pool, in accordance with paragraphs 7.6.19 to 7.6.39.

K_{IRB}

7.6.19 A Reporting Bank shall calculate K_{IRB} as the ratio of (a) the IRB capital requirement for the underlying exposures in the pool as if the exposures were held directly by the Reporting Bank, to (b) the exposure amount of the underlying pool, expressed as a decimal between zero and one. The IRB capital requirement includes the unexpected loss and expected loss of underlying exposures, including defaulted exposures, and where applicable, dilution risk in accordance with in paragraph 7.6.29. A Reporting Bank shall apply the scaling factor of 1.06 referenced in paragraph 7.1.1(b) to the unexpected loss portion of the calculation of K_{IRB} .

7.6.20 A Reporting Bank shall reflect the effects of CRM that is applied to the underlying exposures (either individually or to the entire pool), and hence benefits all of the securitisation exposures, in its calculation of K_{IRB} in paragraph 7.6.19.

7.6.21 For structures involving an SPE, a Reporting Bank shall treat all of the SPE's exposures related to the securitisation as exposures in the pool^{195C}. Such exposures related to the securitisation include reserve accounts, such as cash collateral accounts, and claims against counterparties resulting from interest swaps or currency swaps^{195D}.

7.6.22 In the case of swaps other than credit derivatives, the Reporting Bank shall include, in the computation of the IRB capital requirement of the underlying pool used in calculating K_{IRB} , the positive current market value multiplied by the risk weight of the swap provider and by 8%. The Reporting Bank shall not include such swaps in the computation of the exposure amount of the underlying pool used in calculating K_{IRB} .

7.6.23 Notwithstanding paragraph 7.6.21, the Reporting Bank may exclude the SPE's exposures from the pool for capital calculation purposes if the Reporting Bank can demonstrate to the Authority that the risk associated with the exposures does not affect its particular securitisation exposure or that the risk is immaterial, for example, because it has been mitigated.

7.6.24 For funded synthetic securitisations, a Reporting Bank shall include in the calculation of K_{IRB} any proceeds of the issuances of credit-linked notes or any other funded

^{195C} The Reporting Bank may exclude the SPE's exposures from the pool for capital calculation purposes if the Reporting Bank can demonstrate to the Authority that the risk associated with the exposures does not affect its particular securitisation exposure or that the risk is immaterial, for example, because it has been mitigated.

^{195D} In particular, in the case of swaps other than credit derivatives, the IRB capital requirement of the underlying pool used in calculating K_{IRB} shall include the positive current market value multiplied by the risk weight of the swap provider multiplied by 8%. In contrast, the sum of the exposure amounts of underlying exposures shall not take into account such a swap, as such a swap would not provide a credit enhancement to any tranche.

obligations of the SPE which serve as collateral for the repayment of the securitisation exposure if -

- (a) the Reporting Bank cannot demonstrate to the Authority that these are immaterial; and
- (b) the default risk of such collateral is subject to the tranching loss allocation in the securitisation transaction.

7.6.25 The Reporting Bank shall include, in the computation of the IRB capital requirement of the underlying pool used in calculating K_{IRB} , the exposure amount of the collateral multiplied by its risk weight and 8%. The Reporting Bank shall not include such collateral in the computation of the exposure amount of the underlying pool used in calculating K_{IRB} .

7.6.26 A Reporting Bank shall meet all minimum requirements for the use of IRBA to calculate K_{IRB} for a securitisation exposure. Notwithstanding, a Reporting Bank may, subject to the Authority's approval, use the top-down approach as set out in Sub-division 9 of Division 4 of this Part, subject to the modifications set out in paragraph 7.6.27 to calculate K_{IRB} for a securitisation exposure if -

- (a) for non-retail assets, it would be an undue burden on the Reporting Bank to assess the default risk of individual obligors; and
- (b) for retail assets, the Reporting Bank is unable to primarily rely on internal data.

7.6.27 A Reporting Bank when applying the requirements in Sub-division 9 of Division 4 of this Part and Annex 7W to securitisation exposures using a top-down approach shall apply the requirements with the following modifications -

- (a) "eligible purchased receivables" in Sub-division 9 of Division 4 of this Part and Annex 7W, is read as referring to securitised exposures;
- (b) the requirement in paragraph 7.4.46(c) for the Reporting Bank to have a claim on all proceeds from the pool of receivables or a pro-rata interest in the proceeds does not apply. Instead, the Reporting Bank shall have a claim on all proceeds from the pool of securitised exposures that have been allocated to the Reporting Bank's exposure in the securitisation in accordance with the terms of the related securitisation documentation; and
- (c) if the Reporting Bank cannot itself meet the requirements in paragraphs 2.2 to 2.9 of Annex 7W, it shall instead ensure that it meets these requirements through a party to the securitisation acting for and in the interest of the investors in the securitisation, in accordance with the terms of the related securitisation documents. In particular, the Reporting Bank shall ensure that requirements for effective control and ownership are met for all proceeds from the pool of securitised exposures that have been allocated to the Reporting Bank's exposure to the securitisation. The Reporting Bank shall ensure the securitisation itself (rather than the Reporting Bank) has the relevant policies, procedures, and where

applicable, information systems referred to in paragraph 2.7(a) of Annex 7W.

7.6.28 Where a Reporting Bank has set aside an individual impairment allowance or has a non-refundable purchase price discount on an exposure in the underlying pool, the Reporting Bank shall calculate K_{IRB} using the gross amount of the exposure without taking into account the individual impairment allowance or the non-refundable purchase price discount.

7.6.29 A Reporting Bank shall recognise dilution risk^{195E} in a securitisation in the calculation of K_{IRB} if the Reporting Bank is unable to demonstrate to the Authority that such dilution risk is immaterial.

7.6.30 Where default risk and dilution risk are treated in an aggregate manner (for example, where an identical reserve or overcollateralisation is available to cover losses for both risks), the Reporting Bank shall determine K_{IRB} for dilution risk and default risk respectively, and combine them into a single K_{IRB} prior to applying the SEC-IRBA. Where credit risk and dilution risk are subject to separate waterfalls, the Reporting Bank shall consult the Authority as to how K_{IRB} should be calculated.

Tranche Attachment Point and Detachment Point

7.6.31 The tranche attachment point, A, represents the threshold at which losses within the underlying pool are first allocated to securitisation exposures in that tranche, and is a decimal value between zero and one. A Reporting Bank shall calculate A as the greater of
=

(a) zero; and

(b) the ratio of –

(i) the outstanding balance of all underlying assets in the securitisation minus the outstanding balance of all tranches in the securitisation that rank senior or pari passu to the tranche that contains the securitisation exposure of the Reporting Bank (including the exposure itself); to

(ii) the outstanding balance of all underlying assets in the securitisation.

7.6.32 The tranche detachment point, D, represents the threshold at which losses within the underlying pool result in a total loss of principal for securitisation exposures in that tranche, and is a decimal value between zero and one. A Reporting Bank shall calculate D as the greater of –

(a) zero; and

(b) the ratio of –

^{195E} Dilution risk is defined in footnote 166.

(i) the outstanding balance of all underlying assets in the securitisation minus the outstanding balance of all tranches in the securitisation that rank senior to the tranche that contains the securitisation exposure of the Reporting Bank; to

(ii) the outstanding balance of all underlying assets in the securitisation.

7.6.33 In a Reporting Bank's calculation of A and D –

(a) overcollateralisation and the loss-absorbing part of funded reserve accounts that provide credit enhancement shall be recognised as tranches; and

(b) the assets forming the loss-absorbing part of such funded reserve accounts that provide credit enhancement shall be recognised as underlying assets.

7.6.34 A Reporting Bank shall not include in its calculation of A and D –

(a) unfunded reserve accounts (such as those to be funded from future receipts from the underlying exposures);

(b) assets that do not provide credit enhancement (such as pure liquidity support, currency or interest rate swaps); or

(c) cash collateral accounts related to instruments listed in sub-paragraphs (a) and (b) above.

7.6.35 In applying paragraphs 7.6.33 and 7.6.34, a Reporting Bank shall consider the economic substance of the credit enhancement provided by an asset or reserve account within the securitisation transaction to a tranche, for the purpose of determining whether the asset or reserve account should be included in the calculation of A and D for that tranche. Where the credit enhancement provided by an asset or reserve account referred to in paragraphs 7.6.33 and 7.6.34 to a tranche is uncertain, the Reporting Bank shall exclude the asset or reserve account in the calculation of A and D for that tranche.

N and LGD

7.6.36 A Reporting Bank shall calculate the effective number of exposures in the underlying pool, N, as –

$$N = \frac{(\sum_i EAD_i)^2}{\sum_i EAD_i^2}$$

where EAD_i represents the exposure-at-default associated with the ith instrument in the pool. Multiple exposures to the same obligor shall be consolidated and treated as a single instrument.

7.6.37 A Reporting Bank shall calculate the exposure-weighted average loss-given-default of the underlying pool ("LGD") as –

$$LGD = \frac{\sum_i (LGD_i \cdot EAD_i)}{\sum_i EAD_i}$$

where LGD_i represents the average LGD associated with all exposures to the i^{th} obligor represented in the underlying pool. Where default risk and dilution risk are treated in an aggregate manner (for example, where an identical reserve or overcollateralisation is available to cover losses for both risks) within a securitisation transaction, the LGD input shall be calculated as a weighted average of the LGD for default risk and the 100% LGD for dilution risk. The weights to be applied are the stand-alone IRB capital requirements for default risk and dilution risk respectively.

7.6.38 If the largest exposure in the underlying pool constitutes not more than 3% of the underlying exposures, a Reporting Bank may, for the purposes of the SEC-IRBA, apply a simplified method for computing N and LGD as follows –

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

$$LGD = 0.5$$

where C_m is the proportion of the underlying exposures constituted by the sum of the largest m exposures in the underlying pool, with the value of m determined by the Reporting Bank, and C_1 is the proportion of the underlying exposures constituted by the largest exposure in the underlying pool.

7.6.39 For the purpose of paragraph 7.6.38, if only C_1 is available and this amount is no more than 0.03, a Reporting Bank may compute N as $1/C_1$ and LGD as 0.5.

Supervisory Parameter

7.6.40 A Reporting Bank shall calculate the supervisory parameter p under the SEC-IRBA as –

$$p = \max [0.3, (A + B \cdot (1/N) + C \cdot K_{IRB} + D \cdot LGD + E \cdot M_T)]$$

where –

- (a) 0.3 is the floor of the supervisory parameter p;
- (b) N is the effective number of exposures in the underlying pool calculated in accordance with paragraphs 7.6.36, 7.6.38 and 7.6.39;
- (c) K_{IRB} is the IRB capital requirement of the entire portfolio of underlying exposures per dollar value of exposure calculated in accordance with paragraphs 7.6.19 to 7.6.30;
- (d) LGD is the exposure-weighted average loss-given-default of the underlying pool calculated in accordance with paragraphs 7.6.37 to 7.6.39;
- (e) M_T is the tranche maturity calculated in accordance with Section 6 of Annex 7Z; and
- (f) the parameters A, B, C, D and E are determined according to Table 7-20.

Table 7-20: Parameters for Calculation of Supervisory Parameter under SEC-IRBA

Characteristics of Securitisation Exposure and Underlying Pool		A	B	C	D	E
Wholesale	Senior, granular (N ≥ 25)	0	3.56	-1.85	0.55	0.07
	Senior, non-granular (N < 25)	0.11	2.61	-2.91	0.68	0.07
	Non-senior, granular (N ≥ 25)	0.16	2.87	-1.03	0.21	0.07
	Non-senior, non-granular (N < 25)	0.22	2.35	-2.46	0.48	0.07
Retail	Senior	0	0	-7.48	0.71	0.24
	Non-senior	0	0	-5.78	0.55	0.27

7.6.41 If the underlying pool consists of both retail and wholesale exposures, a Reporting Bank shall divide the pool into one retail sub-pool and one wholesale sub-pool, and calculate a separate p-parameter for each sub-pool. Subsequently, the Reporting Bank shall calculate a weighted average p-parameter for the transaction based on the p-parameters of each sub-pool and the exposure amount in each sub-pool.

7.6.42 If a Reporting Bank applies the SEC-IRBA to a mixed pool as described in Sub-division 7 of this Division, the Reporting Bank shall calculate the p-parameter based on the IRB underlying assets only.

Capital Requirements and Risk Weights under SEC-IRBA

7.6.43 A Reporting Bank using the SEC-IRBA shall calculate the capital requirement per dollar value of securitisation exposure using the following formula –

$$K_{SSFA(K_{IRB})} = \frac{e^{a \cdot u} - e^{a \cdot l}}{a(u - l)}$$

where e is the base of the natural logarithms (approximately equal to 2.71828) and the variables a, u, and l are defined as follows –

(a) $a = - (1 / (p \cdot K_{IRB}))$;

(b) $u = D - K_{IRB}$; and

(c) $l = \max (A - K_{IRB}; 0)$.

7.6.44 A Reporting Bank using the SEC-IRBA shall calculate the risk weight assigned to a securitisation exposure as follows, subject to a floor of 15% for the resultant risk weight and paragraph 7.6.45 –

(a) When the tranche detachment point, D, for a securitisation exposure is less than or equal to K_{IRB} , the risk weight is 1,250%;

(b) When the tranche attachment point, A, for a securitisation exposure is greater than or equal to K_{IRB} , the risk weight of the exposure, expressed as a percentage, is $K_{SSFA(K_{IRB})}$ multiplied by 12.5;

(c) When K_{IRB} is more than A but less than D, the risk weight is the weighted average of 1,250% and $K_{SSFA(K_{IRB})}$ multiplied by 12.5 according to the following formula –

$$RW = \left[\left(\frac{K_{IRB} - A}{D - A} \right) \times 12.5 \right] + \left[\left(\frac{D - K_{IRB}}{D - A} \right) \times 12.5 \times K_{SSFA(K_{IRB})} \right]$$

7.6.45 A Reporting Bank shall infer the risk weight for market risk hedges such as currency or interest rate swaps from a securitisation exposure that is pari passu to the hedge instrument or, if such an exposure does not exist, from the next subordinated tranche.

Sub-division 5: External Ratings-Based Approach (SEC-ERBA)

Short-Term Ratings

7.6.46 A Reporting Bank using the SEC-ERBA shall assign a securitisation exposure for which a short-term rating, an inferred rating based on a short-term rating or an IAA internal rating derived in accordance with Annex 7AF is available, to a credit quality grade in accordance with Table 7R-4 in Annex 7R. Subject to paragraph 7.6.51, the Reporting Bank shall risk-weight the securitisation exposure in accordance with Table 7-21 and paragraph 7.6.50. The Reporting Bank shall subject the resulting risk weight to a floor of 15%.

Table 7-21: SEC-ERBA Risk Weights for Short-Term Ratings

Credit Quality Grade	I	II	III	All other ratings
Risk weight	15%	50%	100%	1250%

Long-Term Ratings

7.6.47 A Reporting Bank using the SEC-ERBA shall assign a securitisation exposure for which a long-term rating, an inferred rating based on a long-term rating, or an IAA internal rating derived in accordance with Annex 7AF, is available, to a credit quality grade in accordance with Table 7R-3 in Annex 7R. Subject to paragraph 7.6.51, the Reporting Bank shall risk-weight the securitisation exposure in accordance with Table 7-22 and paragraph 7.6.50, with the risk weight adjusted for tranche maturity and tranche thickness (for non-senior tranches) in accordance with paragraphs 7.6.48 and 7.6.49. The Reporting Bank shall subject the resulting risk weight to a floor of 15%.

Table 7-22: SEC-ERBA Risk Weights for Long-Term Ratings

Credit Quality Grade	Senior Tranche		Non-Senior Tranche	
	Tranche Maturity (M _T)		Tranche Maturity (M _T)	
	1 Year	5 Year	1 Year	5 Year
<u>1</u>	<u>15%</u>	<u>20%</u>	<u>15%</u>	<u>70%</u>
<u>2</u>	<u>15%</u>	<u>30%</u>	<u>15%</u>	<u>90%</u>
<u>3</u>	<u>25%</u>	<u>40%</u>	<u>30%</u>	<u>120%</u>
<u>4</u>	<u>30%</u>	<u>45%</u>	<u>40%</u>	<u>140%</u>
<u>5</u>	<u>40%</u>	<u>50%</u>	<u>60%</u>	<u>160%</u>
<u>6</u>	<u>50%</u>	<u>65%</u>	<u>80%</u>	<u>180%</u>
<u>7</u>	<u>60%</u>	<u>70%</u>	<u>120%</u>	<u>210%</u>
<u>8</u>	<u>75%</u>	<u>90%</u>	<u>170%</u>	<u>260%</u>
<u>9</u>	<u>90%</u>	<u>105%</u>	<u>220%</u>	<u>310%</u>
<u>10</u>	<u>120%</u>	<u>140%</u>	<u>330%</u>	<u>420%</u>
<u>11</u>	<u>140%</u>	<u>160%</u>	<u>470%</u>	<u>580%</u>
<u>12</u>	<u>160%</u>	<u>180%</u>	<u>620%</u>	<u>760%</u>
<u>13</u>	<u>200%</u>	<u>225%</u>	<u>750%</u>	<u>860%</u>
<u>14</u>	<u>250%</u>	<u>280%</u>	<u>900%</u>	<u>950%</u>
<u>15</u>	<u>310%</u>	<u>340%</u>	<u>1050%</u>	<u>1050%</u>
<u>16</u>	<u>380%</u>	<u>420%</u>	<u>1130%</u>	<u>1130%</u>
<u>17</u>	<u>460%</u>	<u>505%</u>	<u>1250%</u>	<u>1250%</u>
<u>18</u>	<u>1250%</u>	<u>1250%</u>	<u>1250%</u>	<u>1250%</u>

7.6.48 To account for the tranche maturity of a securitisation exposure, the Reporting Bank shall use linear interpolation between the appropriate risk weights provided in Table 7-22 for a one year maturity and a five year maturity, as follows –

$$RW_{M adj.} = RW_{(M=1)} + (RW_{(M=5)} - RW_{(M=1)}) \cdot \left(\frac{M_T - 1}{5 - 1} \right)$$

The Reporting Bank shall calculate the risk weight of a senior securitisation exposure as –

$$RW = RW_{M adj.}$$

where –

- (a) RW_{M adj.} is the risk weight of the securitisation exposure after accounting for tranche maturity;
- (b) M_T is the tranche maturity of the securitisation exposure calculated in accordance with Section 6 of Annex 7Z; and
- (c) RW is the risk weight of the securitisation exposure assigned under the SEC-ERBA.

7.6.49 To account for the tranche thickness of a non-senior securitisation exposure, the Reporting Bank shall calculate the risk weight of a non-senior tranche as follows –

$$RW = RW_{M adj.} \cdot [1 - \min(T, 0.5)]$$

where –

- (a) T is the thickness of the tranche where the securitisation exposure resides, and is calculated as (D – A), as D and A are defined in paragraphs 7.6.31 to 7.6.35; and
- (b) $RW_{M\ adj.}$ is the risk weight as determined in accordance with paragraph 7.6.48.

7.6.50 A Reporting Bank shall infer the risk weight for market risk hedges such as currency or interest rate swaps from a securitisation exposure that is pari passu to the hedge instrument or, if such an exposure does not exist, from the next subordinated tranche.

7.6.51 When a Reporting Bank applies the SEC-ERBA to an unrated non-senior exposure in a transaction where the relatively more senior exposures (i.e. securitisation exposures with precedence in claims on the cash flows from the underlying exposures) are rated, the Reporting Bank shall not apply a risk weight under the SEC-ERBA for the non-senior exposure which is lower than the risk weight for an exposure to the immediately preceding more senior rated exposure.

Sub-division 6: Standardised Approach (SEC-SA)

7.6.52 A Reporting Bank using the SEC-SA to calculate capital requirements for a securitisation exposure to an SA pool shall calculate the following inputs: K_{SA} , ratio of total delinquent underlying exposures to total underlying exposures in the pool (W), and tranche attachment point (A) and detachment point (D), in accordance with paragraphs 7.6.53 to 7.6.69.

K_{SA}

7.6.53 K_{SA} is the weighted-average capital requirement of the entire portfolio of underlying exposures per dollar value of exposure, calculated by applying the SA(CR) as if the underlying exposures had not been securitised, multiplied by 8%.

7.6.54 A Reporting Bank shall calculate K_{SA} according to the following formula, expressed as a decimal between zero and one –

$$K_{SA} = \frac{SA(CR) RWA_{Underlying}}{SA(CR) Exposure_{Underlying}} \cdot 8\%$$

The SA(CR) RWA is calculated according to paragraph 7.1.3.

7.6.55 The Reporting Bank shall reflect the effects of CRM that is applied to the underlying exposures (either individually or to the entire pool) in its calculation of K_{SA} .

7.6.56 For structures involving an SPE, a Reporting Bank shall treat all of the SPE's exposures related to the securitisation as exposures in the pool. Exposures related to the

securitisation include reserve accounts, cash collateral accounts and claims against counterparties resulting from interest rate swaps or currency swaps. In the case of swaps other than credit derivatives, the Reporting Bank shall include, in the computation of $SA(CR) RWA_{Underlying}$ used in calculating K_{SA} , the positive current market value multiplied by the risk weight of the swap provider and by 8%. The Reporting Bank shall not include such swaps in the computation of $SA(CR) Exposure_{Underlying}$ used in calculating K_{SA} , as such a swap would not provide a credit enhancement to any tranche. The Reporting Bank may exclude the SPE's exposures from the pool for capital calculation purposes if the Reporting Bank can demonstrate to the Authority that the risk associated with the exposures does not affect its particular securitisation exposure or that the risk is not material, for example, because it has been mitigated.

7.6.57 For funded synthetic securitisations, a Reporting Bank shall include in the calculation of K_{SA} any proceeds of the issuances of credit-linked notes or other funded obligations of the SPE which serve as collateral for the repayment of the securitisation exposure if –

- (a) the Reporting Bank cannot demonstrate to the Authority that these are not material; and
- (b) the default risk of the collateral is subject to the tranching loss allocation in the securitisation transaction.

7.6.58 For the purposes of paragraph 7.6.54, the Reporting Bank shall include in the computation of $SA(CR) RWA_{Underlying}$ used in calculating K_{SA} the exposure amount of the collateral multiplied by its risk weight and by 8%. The Reporting Bank shall not include such collateral in the computation of $SA(CR) Exposure_{Underlying}$ used in calculating K_{SA} .

7.6.59 Where a Reporting Bank has set aside an individual impairment allowance or has a non-refundable purchase price discount on an exposure in the underlying pool, the Reporting Bank shall calculate K_{SA} using the gross amount of the exposure without taking into account the individual impairment allowance or the non-refundable purchase price discount.

W

7.6.60 A Reporting Bank shall calculate W, the ratio of the sum of the nominal amount of delinquent underlying exposures to the total nominal amount of underlying exposures in the pool. Delinquent underlying exposures are underlying exposures that are 90 days or more past due, subject to bankruptcy or insolvency proceedings, in the process of foreclosure, held as real estate owned or in default, where default is defined within the securitisation deal documents.

Tranche Attachment Point and Detachment Point

7.6.61 A Reporting Bank shall calculate the tranche attachment point, A, and the tranche detachment point, D, in accordance with paragraphs 7.6.31 to 7.6.35.

7.6.62 Where the only difference between exposures to a transaction is related to maturity, A and D are the same.

Capital Requirements and Risk Weights under SEC-SA

7.6.63 A Reporting Bank shall calculate K_A , using the inputs K_{SA} and W , as follows –

$$K_A = (1 - W) \times K_{SA} + W \times 0.5$$

7.6.64 If a Reporting Bank does not know the delinquency status, as defined in paragraph 7.6.60, for no more than 5% of underlying exposures in the pool (calculated by E , as defined in Division 2 of this Part), the Reporting Bank may use the SEC-SA by adjusting its calculation of K_A as follows –

$$K_A = \left(\frac{E_{\text{Subpool 1 where } W \text{ is known}}}{E_{\text{Total}}} \times K_A^{\text{Subpool 1 where } W \text{ is known}} \right) + \frac{E_{\text{Subpool 2 where } W \text{ is unknown}}}{E_{\text{Total}}}$$

If a Reporting Bank does not know the delinquency status for more than 5% of underlying exposures in the pool (calculated by E , as defined in Division 2 of this Part), the Reporting Bank shall risk-weight the securitisation exposure at 1250%.

7.6.65 A Reporting Bank using the SEC-SA shall calculate the capital requirement per dollar value of securitisation exposure using the following formula –

$$K_{SSFA(K_A)} = \frac{e^{a \cdot u} - e^{a \cdot l}}{a(u - l)}$$

where e is the base of the natural logarithms (approximately equal to 2.71828) and the variables a , u , and l are defined as follows –

(a) $a = - (1 / (p \cdot K_A))$;

(b) $u = D - K_A$; and

(c) $l = \max (A - K_A; 0)$.

7.6.66 The supervisory parameter p under the SEC-SA is 1 for a securitisation exposure that is not a resecuritisation exposure.

7.6.67 Subject to paragraph 7.6.69, a Reporting Bank shall risk-weight any securitisation exposure for which it is using the SEC-SA in accordance with sub-paragraphs (a), (b), and (c), and paragraph 7.6.68. The Reporting Bank shall subject the resulting risk weight to a floor of 15%.

(a) when the tranche detachment point, D for a securitisation exposure is less than or equal to K_A , the risk weight is 1250%;

(b) when the tranche attachment point, A for a securitisation exposure is greater than or equal to K_A , the risk weight of the exposure, expressed as a percentage, is $K_{SSFA(K_A)}$ multiplied by 12.5;

(c) when K_A is more than A but less than D, the risk weight is the weighted average of 1250% and $K_{SSFA(K_A)}$ multiplied by 12.5 according to the following formula –

$$RW = \left[\left(\frac{K_A - A}{D - A} \right) \times 12.5 \right] + \left[\left(\frac{D - K_A}{D - A} \right) \times 12.5 \times K_{SSFA(K_A)} \right]$$

7.6.68 A Reporting Bank shall infer the risk weight for market risk hedges such as currency or interest rate swaps from a securitisation exposure that is pari passu to the hedge instrument or, if such an exposure does not exist, from the next subordinated tranche.

7.6.69 When a Reporting Bank applies the SEC-SA to an unrated non-senior exposure in a transaction where the relatively more senior exposures (i.e. securitisation exposures with precedence in claims on the cash flows from the underlying exposures) are rated, the Reporting Bank shall not apply a risk weight under SEC-SA for the unrated non-senior exposure which is lower than the risk weight for the immediately preceding more senior rated exposure.

Sub-division 7: Treatment of Mixed Pools

7.6.70 Where a Reporting Bank is able to calculate K_{IRB} on at least 95% of the underlying exposure amounts of a securitisation, the Reporting Bank shall apply the SEC-IRBA calculating the capital requirement for the underlying pool as –

$$d * K_{IRB} + (1-d) * K_{SA}$$

where d is the percentage of the exposure amount of underlying exposures for which the Reporting Bank is able to calculate K_{IRB} over the exposure amount of all underlying exposures, K_{IRB} is defined in paragraphs 7.6.19 to 7.6.30, and K_{SA} is defined in paragraphs 7.6.53 to 7.6.59.

7.6.71 Where the Reporting Bank is not able to calculate K_{IRB} on at least 95% of the underlying amounts of a securitisation, the Reporting Bank shall use the hierarchy for securitisation exposures of SA pools as set out in paragraphs 7.6.14 to 7.6.17.

Sub-division 8: Treatment of Resecuritisation Exposures

7.6.72 A Reporting Bank shall risk-weight any resecuritisation exposure by applying the SEC-SA specified in Sub-division 6 of this Division, with the following adjustments and subject the resulting risk weight to a floor of 100% –

(a) the capital requirement of the resecuritisation's underlying securitisation exposures (K_{SA}) is calculated using the securitisation framework in this Division instead of the SA(CR);

- (b) delinquencies (W) are set to zero for any exposure to a securitisation tranche in the underlying pool; and
- (c) the supervisory parameter p is set equal to 1.5, rather than 1.

7.6.73 If the underlying portfolio of a resecuritisation consists of a pool with exposures to securitisation tranches and exposures to other non-securitised assets, a Reporting Bank shall separate the portfolio into two subsets, one consisting of securitisation tranches, and one consisting of exposures to other non-securitised assets. The Reporting Bank shall calculate K_A separately for each subset, with separate K_{SA} and W parameters. The Reporting Bank shall calculate W in accordance with paragraph 7.6.60 in the subset where the exposures are to non-securitised assets, and set W to zero where the exposures are to securitisation tranches. The Reporting Bank shall then calculate K_A for the resecuritisation exposure as the nominal exposure weighted-average of the K_A for each subset.

Sub-division 9: Treatment of Simple, Transparent and Comparable ("STC") Securitisations

Scope and Identification of STC Securitisations

7.6.74 A Reporting Bank may apply the provisions in paragraphs 7.6.78 and 7.6.79 for securitisation exposures only if the following requirements are met –

- (a) the securitisation exposures do not arise from ABCP programmes;
- (b) the securitisation exposures arise from traditional securitisations; and
- (c) the Reporting Bank has assessed that the securitisation exposures arise from a securitisation which meets all the criteria in Annex 7AG ("STC Criteria") on an ongoing basis, in accordance with paragraph 7.6.75.

7.6.75 In assessing that the securitisation meets all the STC Criteria, a Reporting Bank shall –

- (a) if it is an investor in the securitisation, make its own assessment based on the information provided by the originator of the securitisation; and
- (b) if it is an originator in the securitisation, make its own assessment.

7.6.76 A Reporting Bank that is an originator of a securitisation shall disclose to investors all necessary information at the transaction level to allow investors to determine whether the securitisation meets all the STC criteria.

7.6.77 A Reporting Bank shall assess that the securitisation meets the STC Criteria on an ongoing basis and take into account developments that may invalidate its previous assessment, including deficiencies in the frequency and content of the investor reports, in the alignment of interest, or changes in the transaction documentation which are relevant to the STC Criteria. In cases where the STC Criteria refer to the underlying assets of the

securitisation, including but not limited to paragraphs 4.1 and 4.2 of Annex 7AG, and the pool is dynamic, the Reporting Bank shall conduct checks every time that assets are added to such pool to assess compliance with the STC criteria.

Overview of Alternative Capital Treatment for STC Securitisations

7.6.78 A Reporting Bank, in respect of a securitisation exposure which meets the requirements of paragraph 7.6.74, may calculate the credit risk-weighted exposure amount for a securitisation exposure –

- (a) when the SEC-IRBA is used, by applying the provisions in paragraph 7.6.80 instead of paragraph 7.6.40;
- (b) when the SEC-ERBA is used, by applying the provisions in paragraphs 7.6.81 and 7.6.82 instead of paragraphs 7.6.46 and 7.6.47 respectively; and
- (c) when the SEC-SA is used, by applying the provisions in paragraphs 7.6.83 and 7.6.84 instead of paragraphs 7.6.66 and 7.6.67 respectively.

7.6.79 Under the SEC-IRBA, SEC-ERBA, and SEC-SA, the resulting risk weight is subject to a minimum risk weight of 10% for senior securitisation tranches, and 15% for non-senior securitisation tranches.

Alternative Capital Treatment for STC Securitisations under the SEC-IRBA

7.6.80 A Reporting Bank shall calculate the supervisory parameter p for a securitisation exposure which meets the requirements of paragraph 7.6.74 under the SEC-IRBA as –

$$p = \max [0.3; (A + B*(1/N) + C*K_{IRB} + D*LGD + E*M_T)*0.5]$$

where –

- (a) 0.3 denotes the floor of the supervisory parameter p;
- (b) N is the effective number of exposures in the underlying pool calculated in accordance with paragraphs 7.6.36, 7.6.38 and 7.6.39;
- (c) K_{IRB} is the IRB capital requirement of the entire portfolio of underlying exposures per dollar value of exposure calculated in accordance with paragraphs 7.6.19 to 7.6.30;
- (d) LGD is the exposure-weighted average loss-given-default of the underlying pool calculated in accordance with paragraphs 7.6.37 to 7.6.39;
- (e) M_T is the tranche maturity calculated in accordance with Section 6 of Annex 7Z; and

- (f) The parameters A, B, C, D and E are determined according to Table 7-23
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Table 7-23: Parameters for Calculation of Supervisory Parameter for STC Securitisations under SEC-IRBA

Characteristics of Securitisation Exposure and Underlying Pool		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
<u>Wholesale</u>	<u>Senior, granular (N ≥ 25)</u>	<u>0</u>	<u>3.56</u>	<u>-1.85</u>	<u>0.55</u>	<u>0.07</u>
	<u>Senior, non-granular (N < 25)</u>	<u>0.11</u>	<u>2.61</u>	<u>-2.91</u>	<u>0.68</u>	<u>0.07</u>
	<u>Non-senior, granular (N ≥ 25)</u>	<u>0.16</u>	<u>2.87</u>	<u>-1.03</u>	<u>0.21</u>	<u>0.07</u>
	<u>Non-senior, non-granular (N < 25)</u>	<u>0.22</u>	<u>2.35</u>	<u>-2.46</u>	<u>0.48</u>	<u>0.07</u>
<u>Retail</u>	<u>Senior</u>	<u>0</u>	<u>0</u>	<u>-7.48</u>	<u>0.71</u>	<u>0.24</u>
	<u>Non-senior</u>	<u>0</u>	<u>0</u>	<u>-5.78</u>	<u>0.55</u>	<u>0.27</u>

Alternative Capital Treatment for STC Securitisations under the SEC-ERBA

Short-Term Ratings

7.6.81 A Reporting Bank using the SEC-ERBA for a securitisation exposure which meets the requirements of paragraph 7.6.74 shall assign a securitisation exposure for which a short-term rating, an inferred rating based on a short-term rating, or an IAA internal rating derived in accordance with Annex 7AF is available, to a credit quality grade in accordance with Table 7R-4 in Annex 7R. Subject to paragraph 7.6.51, the Reporting Bank shall risk-weight the securitisation exposure in accordance with Table 7-24 and paragraph 7.6.50. The Reporting Bank shall subject the resulting risk weight to a floor of 10% for senior securitisation tranches, and 15% for non-senior securitisation tranches.

Table 7-24: SEC-ERBA Risk Weights for STC Securitisations with Short-Term Ratings

<u>Credit Quality Grade</u>	<u>I</u>	<u>II</u>	<u>III</u>	<u>All other ratings</u>
<u>Risk weight</u>	<u>10%</u>	<u>30%</u>	<u>60%</u>	<u>1250%</u>

Long-Term Ratings

7.6.82 A Reporting Bank using the SEC-ERBA for a securitisation exposure which meets the requirements of paragraph 7.6.74 shall assign a securitisation exposure for which a long-term rating, an inferred rating based on a long-term rating, or an IAA internal rating derived in accordance with Annex 7AF, is available, to a credit quality grade in accordance with Table 7R-3 in Annex 7R. Subject to paragraph 7.6.51, the Reporting Bank shall risk-weight the securitisation exposure in accordance with Table 7-25 and paragraph 7.6.50, with the risk weight adjusted for tranche maturity and tranche thickness (for non-senior tranches) in accordance with paragraphs 7.6.48 and 7.6.49. The Reporting Bank shall subject the resulting risk weight to a floor of 10% for senior securitisation tranches, and 15% for non-senior securitisation tranches.

Table 7-25: SEC-ERBA Risk Weights for STC Securitisations with Long-Term Ratings

Credit Quality Grade	Senior Tranche		Non-Senior Tranche	
	Tranche Maturity (M _T)		Tranche Maturity (M _T)	
	1 Year	5 Year	1 Year	5 Year
1	10%	10%	15%	40%
2	10%	15%	15%	55%
3	15%	20%	15%	70%
4	15%	25%	25%	80%
5	20%	30%	35%	95%
6	30%	40%	60%	135%
7	35%	40%	95%	170%
8	45%	55%	150%	225%
9	55%	65%	180%	255%
10	70%	85%	270%	345%
11	120%	135%	405%	500%
12	135%	155%	535%	655%
13	170%	195%	645%	740%
14	225%	250%	810%	855%
15	280%	305%	945%	945%
16	340%	380%	1015%	1015%
17	415%	455%	1250%	1250%
18	1250%	1250%	1250%	1250%

Alternative Capital Treatment for STC Securitisations under the SEC-SA

7.6.83 For the purpose of paragraph 7.6.78, the supervisory parameter p for a securitisation exposure which meets the requirements of paragraph 7.6.74 under the SEC-SA is 0.5.

7.6.84 Subject to paragraph 7.6.69, a Reporting Bank shall risk-weight any securitisation exposure for which it is using the SEC-SA in accordance with sub-paragraphs (a), (b), and (c), and paragraph 7.6.68. The Reporting Bank shall subject the resulting risk weight to a floor of 10% for senior securitisation tranches, and 15% for non-senior securitisation tranches.

- (a) when the tranche detachment point, D for a securitisation exposure is less than or equal to K_A, the risk weight is 1250%;
- (b) when the tranche attachment point, A for a securitisation exposure is greater than or equal to K_A, the risk weight of the exposure, expressed as a percentage, is K_{SSFA(K_A)} multiplied by 12.5;
- (c) when K_A is more than A but less than D, the risk weight is the weighted average of 1250% and K_{SSFA(K_A)} multiplied by 12.5 according to the following formula –

$$RW = \left[\left(\frac{K_A - A}{D - A} \right) \times 12.5 \right] + \left[\left(\frac{D - K_A}{D - A} \right) \times 12.5 \times K_{SSFA(K_A)} \right]$$

Sub-division 10: Implicit Support

7.6.85 When a Reporting Bank provides implicit support to a securitisation, it shall –

- (a) include all the underlying exposures of the securitisation in its calculation of credit RWA as if those exposures had not been securitised;
- (b) deduct from CET1 capital any increase in equity capital due to a gain on sale, in accordance with paragraph 6.1.3(f); and
- (c) publicly disclose that it has provided non-contractual support and the capital impact of doing so.

Sub-division 11: Treatment of Credit Risk Mitigation

7.6.86 A Reporting Bank may recognise the effects of CRM of eligible financial collateral pledged by any SPE, but it shall not recognise any SPE which is an issuer of securitisation exposures as an eligible protection provider.

7.6.87 Subject to paragraph 7.6.88, a Reporting Bank shall treat a currency mismatch or a maturity mismatch¹⁹⁶ between the underlying exposure being hedged and the CRM obtained through the synthetic securitisation in accordance with Annex 7F of this Part. In the case where the exposures in the underlying pool have different maturities, the Reporting Bank shall use the longest maturity as the maturity of the pool.

7.6.88 A Reporting Bank which is an ABCP programme sponsor or originator in a synthetic securitisation shall not take into account maturity mismatches for the securitisation exposures it retains if a 1250% risk weight is applied to such securitisation exposures.

Recognition of Eligible Financial Collateral under FC(SA)

7.6.89 A Reporting Bank which has taken eligible financial collateral for an SEC-ERBA or SEC-SA exposure and is using the FC(SA) may recognise the effects of CRM of the eligible financial collateral in the following manner –

- (a) break down the securitisation exposure into –
 - (i) a collateralised portion with E equal to the latest fair market value of the eligible financial collateral; and

¹⁹⁶ For example, maturity mismatches may arise when a Reporting Bank uses credit derivatives to transfer part or all of the credit risk of a specific pool of assets to third parties. When the credit derivatives unwind, the transaction terminates. This implies that the effective maturity of the tranches of the synthetic securitisation may differ from that of the underlying exposures.

- (ii) an uncollateralised portion with E equal to the E of the securitisation exposure less the latest fair market value of the eligible financial collateral;
- (b) apply the risk weight that is applicable to the eligible financial collateral, to the collateralised portion calculated in accordance with sub-paragraph (a)(i) above to calculate the credit risk-weighted exposure amount of the collateralised portion as though the Reporting Bank had a direct exposure to the eligible financial collateral; and
- (c) apply the risk weight that is applicable to the securitisation exposure, calculated in accordance with this Division, to the uncollateralised portion calculated in accordance with subparagraph (a)(ii) above to calculate the credit risk-weighted exposure amount of the uncollateralised portion.

7.6.90 A Reporting Bank which is using FC(SA) shall not recognise the effects of CRM of any collateral with a maturity mismatch.

Treatment of Eligible Credit Protection Bought

7.6.91 Subject to paragraph 7.6.92, A Reporting Bank which has bought eligible credit protection for a securitisation exposure may recognise the effects of CRM of the eligible credit protection in the following manner –

- (a) break down the securitisation exposure into –
 - (i) a protected portion with E or EAD equal to the notional amount of the eligible credit protection; and
 - (ii) an unprotected portion with E or EAD equal to the value of the securitisation exposure measured in accordance with Division 2 of this Part less the notional amount of the eligible credit protection;
- (b) apply the risk weight that is applicable to the eligible protection provider¹⁹⁷ to the protected portion calculated in accordance with sub-paragraph (a)(i) above to calculate the credit risk-weighted exposure amount of the protected portion; and
- (c) apply the risk weight, calculated in accordance with this Division, that is applicable to the securitisation exposure to the unprotected portion calculated in accordance with sub-paragraph (a)(ii) above to calculate the credit risk-weighted exposure amount of the unprotected portion.

7.6.92 A Reporting Bank shall use the sum of the credit risk-weighted exposure amounts of the protected and unprotected portions as the credit risk-weighted exposure amount of the securitisation exposure referred to in paragraph 7.1.8(b), subject to the

¹⁹⁷ Where a Reporting Bank has bought from an eligible protection provider a credit default swap which is an eligible credit protection and cleared through a CCP, the Reporting Bank may apply a risk weight of 2% if the credit default swap constitutes a CCP trade exposure in accordance with paragraph 2.1 or 2.5 of Annex 7AJ, or 4% if the credit default swap constitutes a CCP trade exposure in accordance with paragraph 2.6 of Annex 7AJ.

maximum risk weights applicable for senior exposures, calculated in accordance with paragraphs 7.1.9 to 7.1.11.

7.6.93 A Reporting Bank shall apply a 1250% risk weight to exposures below any materiality threshold¹⁹⁸ below which no payment will be made by the protection provider in the event of loss on a securitisation exposure.

7.6.94 For the purposes of paragraph 7.6.91, a Reporting Bank shall apply the relevant provisions in Annex 7H for the purpose of determining the protected portion and capital requirement in cases of proportional cover, principal-only cover, partially eligible credit derivatives, tranching cover and basket credit derivatives.

7.6.95 For the purposes of paragraph 7.6.91, a Reporting Bank shall treat the protected portion of a securitisation exposure which has a currency mismatch or a maturity mismatch in accordance with Annex 7F of this Part. In the case where the underlying exposure in the protected portion of a securitisation has different maturities, the Reporting Bank shall use the longest maturity as the maturity of the protected portion.

Maturity Mismatches

7.6.96 When a Reporting Bank buys protection on securitised assets underlying a securitisation, maturity mismatches may arise in the context of synthetic securitisations^{198A}. When the credit derivatives unwind, the securitisation will terminate. This implies that the effective maturity of all the tranches of the synthetic securitisation may differ from that of the underlying exposures.

7.6.97 A Reporting Bank that synthetically securitises exposures held on its balance sheet by purchasing tranching credit protection shall treat maturity mismatches between the synthetic securitisation and the underlying exposures in the following manner –

- (a) for securitisation exposures that are assigned a risk weight of 1250%, maturity mismatches are not taken into account; and
- (b) for all other securitisation exposures, the bank shall determine its capital requirements as described in this Sub-division, after adjusting the value of credit protection for any maturity mismatches in accordance with Section 6 of Annex 7F.

Treatment of Credit Protection Sold

7.6.98 Where a Reporting Bank provides full (or pro rata) unfunded credit protection to a securitisation exposure, the Reporting Bank shall calculate the credit risk-weighted exposure amount for the covered portion of the securitisation exposure as if it were directly holding that portion of the exposure. Where a Reporting Bank provides tranching cover to a securitisation exposure, the Reporting Bank shall calculate the credit risk-weighted

¹⁹⁸ An exposure below such threshold is equivalent to a retained first loss position.

^{198A} For example, when the Reporting Bank uses credit derivatives to transfer part or all of the credit risk of a specific pool of assets to third parties.

exposure amount for the covered portion of the securitisation exposure in accordance with paragraphs 1.4A-1.4F of Annex 7H.

7.6.99 Where a Reporting Bank provides funded credit protection to a securitisation exposure, the Reporting Bank shall calculate the credit risk-weighted exposure amount for the credit protection as the sum of –

- (a) the credit risk-weighted exposure amount for the covered securitisation exposure calculated in accordance with paragraph 7.6.98; and
- (b) the credit risk-weighted exposure amount for the exposure to the protection buyer calculated using the risk weight which is applicable to the protection buyer.

subject to the condition that the sum of the credit risk-weighted exposure amounts shall not exceed the credit risk-weighted exposure amount calculated by applying a risk weight of 1250% to the covered securitisation exposure.

The previous Annex 7C (CCFs for Off-Balance Sheet Items under the SA(SE)) is deleted and substituted with the following Annex 7C

Annex 7C

CCFs FOR OFF-BALANCE SHEET SECURITISATION EXPOSURES

	<u>Description of Off-balance Sheet Item</u>	<u>CCF</u>
(a)	<u>Undrawn portion of servicer cash advances or facilities, that are unconditionally cancellable without prior notice</u> ²¹⁶	<u>0%</u> ²¹⁷
(b)	<u>Undrawn portion of other servicer cash advances or facilities</u>	<u>100%</u>
(c)	<u>Other facilities which are not credit risk mitigants</u>	<u>100%</u>

²¹⁶ This refers to undrawn servicer cash advances or facilities that are contractually provided for and unconditionally cancellable without prior notice, so long as the servicer is entitled to full reimbursement and this right is senior to other claims on cash flows from the underlying exposures.

²¹⁷ A Reporting Bank shall notify the Authority if it intends to provide such cash advance facilities and when there is a drawdown.

²¹⁸ A Reporting Bank shall notify the Authority if it intends to provide such cash advance facilities and when there is a drawdown.

~~CCFs FOR OFF-BALANCE SHEET ITEMS UNDER THE IRBA(SE)~~

	Description of Off-balance Sheet Item	CCF
(a)	Eligible liquidity facilities ²¹⁹²²⁰²²¹	100%
(b)	Eligible servicer cash advance facilities ²²²	0% ²²³
(c)	Others	100%

²¹⁹ ~~[This footnote has been intentionally left blank.]~~

²²⁰ ~~[This footnote has been intentionally left blank.]~~

²²¹ ~~[This footnote has been intentionally left blank.]~~

²²² ~~This refers to undrawn servicer cash advances or facilities that are contractually provided for and unconditionally cancellable without prior notice, so long as the servicer is entitled to full reimbursement and this right is senior to other claims on cash flows from the underlying exposures. A Reporting Bank shall notify the Authority if it intends to provide such cash advance facilities and when there is a drawdown.~~

²²³ ~~A Reporting Bank shall apply a CCF of 100% where the IAM is used to determine the appropriate risk weight for such facilities.~~

CCFs FOR EARLY AMORTISATION EXPOSURESUncommitted Retail Exposures²²⁴

1.1 — To determine the CCF to be applied for uncommitted retail exposures, a Reporting Bank shall compute the ESR.

1.2 — In cases where a transaction does not require excess spread to be trapped, a Reporting Bank shall deem the trapping point to be 4.5%.

	Securitisation subject to a controlled-early amortisation provision	Securitisation subject to a non-controlled-early amortisation provision
	CCF	CCF
$ESR \geq 133.33\%$	0%	0%
$100\% \leq ESR < 133.33\%$	1%	5%
$75\% \leq ESR < 100\%$	2%	15%
$50\% \leq ESR < 75\%$	10%	50%
$25\% \leq ESR < 50\%$	20%	100%
$ESR < 25\%$	40%	100%

Other Exposures²²⁵

	Securitisation subject to a controlled-early amortisation provision	Securitisation subject to a non-controlled-early amortisation provision
CCF	90%	100%

²²⁴ A credit line is considered uncommitted if it is unconditionally cancellable without prior notice (e.g. credit card receivables).

²²⁵ This refers to committed retail credit lines and all non-retail exposures.

TREATMENT FOR SPECIFIC TYPES OF CREDIT PROTECTION BOUGHT

Proportional Cover

1.1 Where the amount guaranteed, or against which the eligible credit protection is held, is less than the amount of the exposure and the protected and unprotected portions are of equal seniority, i.e. the Reporting Bank and the eligible credit protection provider share losses on a pro-rata basis, a Reporting Bank shall recognise the eligible credit protection on a proportional basis, i.e. by applying to the protected portion of the exposure the treatment applicable to eligible credit protection, and by treating the remainder of the exposure as unprotected.

Principal-only Cover

1.2 Where the amount guaranteed, or against which an eligible credit protection is held, offers principal-only cover, a Reporting Bank shall treat the principal amount as the protected portion and interest and other uncovered payments as the unprotected portion.

Partially Eligible Credit Derivatives

1.3 Where a Reporting Bank recognises credit protection through a credit derivative which meets all the requirements in Annex 7F of Part VII other than paragraph 4.2(f)(iii) of that Annex, it shall treat as the protected portion –

- (a) 60% of the amount of the credit derivative; or
- (b) 60% of the amount of the underlying exposure,

whichever is lower.

Tranched cover [for Non-Securitisation Exposures](#)

1.4 Where a Reporting Bank transfers a portion of the risk of an exposure or a pool of exposures in one or more tranches to a protection seller or sellers and the risk transferred and the risk retained are of different seniority, the Reporting Bank may recognise credit protection for either the senior tranches (e.g. second loss portion) or the junior tranches (e.g. first loss portion) only if the requirements for the recognition of risk transference for synthetic securitisation as set out in Sub-division 2 of Division 6 of Part VII are complied with.

[Tranched Cover for Securitisation Exposures](#)

1.4A In the case of tranching cover for a securitisation exposure, a Reporting Bank shall decompose the original securitisation tranche into protected and unprotected sub-tranches^{269A}.

1.4B Subject to paragraphs 1.4D to 1.4F, where a Reporting Bank provides tranching cover to a securitisation exposure, it shall calculate its capital requirement as if it is directly exposed to the particular sub-tranche of the securitisation exposure on which it is providing protection, applying the approach as determined by paragraphs 7.6.12 to 7.6.17.

1.4C A Reporting Bank which has bought eligible credit protection shall calculate its capital requirements for the unprotected and protected sub-tranches separately in the following manner –

- (a) subject to paragraphs 1.4D to 1.4F, by applying the risk weight that is applicable to the unprotected portion, and using the approach as determined by paragraphs 7.6.12 to 7.6.17 to calculate the credit risk-weighted exposure amount of the unprotected portion; and
- (b) by applying the risk weight that is applicable to the eligible protection provider^{269B} to the protected portion to calculate the credit risk-weighted exposure amount of the protected portion. A Reporting Bank shall perform these calculations in accordance with the method of calculation of tranche maturity in Section 6 of Annex 7Z.

1.4D If, according to the hierarchy of approaches determined by paragraphs 7.6.12 to 7.6.17, a Reporting Bank shall use the SEC-IRBA or SEC-SA for the original securitisation exposure, the Reporting Bank shall calculate the parameters A and D separately for each of the sub-tranches as if the sub-tranches have been directly issued as separate tranches at the inception of the transaction. A Reporting Bank shall compute the value for K_{IRB} or K_{SA} as the case may be on the underlying portfolio of the original transaction.

1.4E If, according to the hierarchy of approaches determined by paragraphs 7.6.12 to 7.6.17, a Reporting Bank shall use the SEC-ERBA for the original securitisation exposure, the Reporting Bank shall calculate the relevant risk weights for the different sub-tranches as follows –

- (a) for the sub-tranche of highest priority^{269C}, the Reporting Bank shall use the risk weight of the original securitisation exposure; and

^{269A} The envisioned decomposition is theoretical and it should not be viewed as a new securitisation transaction. The resulting sub-tranches are not considered resecuritisations solely due to the presence of the credit protection.

^{269B} Where a Reporting Bank has bought from an eligible protection provider a credit default swap which is an eligible credit protection and cleared through a CCP, the Reporting Bank may apply a risk weight of 2% if the credit default swap constitutes a CCP trade exposure in accordance with paragraph 2.1 or 2.5 of Annex 7AJ, or 4% if the credit default swap constitutes a CCP trade exposure in accordance with paragraph 2.6 of Annex 7AJ.

^{269C} 'Sub-tranche of highest priority' only describes the relative priority of the decomposed tranche. The calculation of the risk weight of each sub-tranche is independent of whether the sub-tranche is protected (ie risk is taken by the protection provider) or unprotected (i.e. risk is taken by the protection buyer).

(b) for a sub-tranche of lower priority –

- (i) the Reporting Bank shall infer a rating from one of the tranches in the original transaction which is subordinated to the original securitisation tranche for which tranching protection is being provided. The Reporting Bank shall then apply the inferred rating to the SEC-ERBA to determine the risk weight of the sub-tranche of lower priority. The Reporting Bank shall compute tranche thickness, T, as the thickness of the sub-tranche of lower priority only; or
- (ii) if it is not possible to infer a rating, the Reporting Bank shall compute the risk weight for the sub-tranche of lower priority using the SEC-SA, applying the adjustments to the determination of the parameters A and D described in paragraph 1.4D of this Annex. The risk weight for this sub-tranche shall be the greater of –
 - (A) the risk weight determined through the application of the SEC-SA with the adjusted A and D points; and
 - (B) the SEC-ERBA risk weight of the original securitisation exposure before any effects of CRM are recognised.

1.4F Under all approaches, a Reporting Bank shall treat a lower-priority sub-tranche as a non-senior securitisation exposure even if the original securitisation exposure prior to protection is a senior securitisation exposure.

Basket Credit Derivatives

1.5 Where a Reporting Bank recognises credit protection through an eligible first-to-default credit derivative, it shall treat as the protected portion –

- (a) the notional amount of the asset in the basket of reference credits with the lowest risk-weighted exposure amount; or
- (b) the notional amount of the credit protection,

whichever is lower.

1.6 Where a Reporting Bank recognises credit protection through an eligible second-to-default credit derivative and –

- (a) it also has first-to-default credit protection, it shall treat as the protected portion –
 - (i) the notional amount of the asset in the basket of reference credits with the second lowest risk weighted exposure amount; or
 - (ii) the notional amount of the credit protection,

whichever is lower; or

- (b) one of the reference credits has already defaulted, it shall treat as the protected portion –
 - (i) the notional amount of the asset in the basket of reference credits remaining with the lowest risk-weighted exposure amount; or
 - (ii) the notional amount of the credit protection,whichever is lower.

CALCULATION OF E*, EAD* OR EAD_{adj} FOR COLLATERALISED TRANSACTIONS OTHER THAN OTC DERIVATIVE TRANSACTIONS AND LONG SETTLEMENT TRANSACTIONS

Re-numbering of Existing Footnote 269A

1.1 A Reporting Bank using the FC(CA) to calculate E*, EAD* or EAD_{adj} shall adjust both the amount of the exposure to the counterparty^{269A269D} and the value of any collateral received in support of that counterparty to take into account possible future fluctuations in the value of either due to market movements, by using the methods and haircuts set out in Annex 7J of Part VII.

1.2 A Reporting Bank shall calculate the appropriate haircuts to be applied using one of the following methods:

- (a) standard supervisory haircuts; or
- (b) own-estimate haircuts.

1.3 A Reporting Bank which chooses to use own-estimate haircuts shall do so for the full range of instrument types for which it is eligible to use own-estimates, the exception being immaterial portfolios where it may use the standard supervisory haircuts.

1.4 As an alternative to the use of standard supervisory haircuts or own-estimate haircuts, a Reporting Bank that has received approval from the Authority to use the IMA for calculating market RWA may use VaR models to reflect the price volatility of the exposure and collateral for SFTs which are covered by a qualifying bilateral netting agreement. The requirements relating to the use of this approach are set out in Annex 7M of Part VII.

^{269A269D} The amount of the exposure may vary where, for example, securities are being lent.

CREDIT QUALITY GRADES

[MAS Notice 637 (Amendment) 2014]

Table 7R-1 - Credit Quality Grades for SA(CR) Exposures

Credit Quality Grade	1	2	3	4	5	6
Fitch Ratings	AAA AA+ AA AA-	A+ A A-	BBB+ BBB BBB-	BB+ BB BB-	B+ B B-	CCC+ CCC CCC- CC C D
Moody's Investors Services	Aaa Aa1 Aa2 Aa3	A1 A2 A3	Baa1 Baa2 Baa3	Ba1 Ba2 Ba3	B1 B2 B3	Caa1 Caa2 Caa3 Ca C
Standard & Poor's Ratings Services	AAA AA+ AA AA-	A+ A A-	BBB+ BBB BBB-	BB+ BB BB-	B+ B B-	CCC+ CCC CCC- CC C D

[MAS Notice 637 (Amendment) 2014]

Table 7R-2 - For Credit Quality Grades for Short-term SA(CR) Exposures

Short-term Credit Quality Grade	I	II	III	IV
Fitch Ratings	F-1	F-2	F-3	Others
Moody's Investors Services	P-1	P-2	P-3	Others
Standard & Poor's Ratings Services	A-1	A-2	A-3	Others

[MAS Notice 637 (Amendment) 2014]

Table 7R-3 - Credit Quality Grades for SEC-ERBA Exposures

Credit Quality Grade	Fitch Ratings	Moody's Investors Services	Standard & Poor's Ratings Services
<u>1</u>	<u>AAA</u>	<u>Aaa</u>	<u>AAA</u>
<u>2</u>	<u>AA+</u>	<u>Aa1</u>	<u>AA+</u>
<u>3</u>	<u>AA</u>	<u>Aa2</u>	<u>AA</u>
<u>4</u>	<u>AA-</u>	<u>Aa3</u>	<u>AA-</u>
<u>5</u>	<u>A+</u>	<u>A1</u>	<u>A+</u>
<u>6</u>	<u>A</u>	<u>A2</u>	<u>A</u>
<u>7</u>	<u>A-</u>	<u>A3</u>	<u>A-</u>
<u>8</u>	<u>BBB+</u>	<u>Baa1</u>	<u>BBB+</u>
<u>9</u>	<u>BBB</u>	<u>Baa2</u>	<u>BBB</u>
<u>10</u>	<u>BBB-</u>	<u>Baa3</u>	<u>BBB-</u>
<u>11</u>	<u>BB+</u>	<u>Ba1</u>	<u>BB+</u>
<u>12</u>	<u>BB</u>	<u>Ba2</u>	<u>BB</u>
<u>13</u>	<u>BB-</u>	<u>Ba3</u>	<u>BB-</u>
<u>14</u>	<u>B+</u>	<u>B1</u>	<u>B+</u>
<u>15</u>	<u>B</u>	<u>B2</u>	<u>B</u>
<u>16</u>	<u>B-</u>	<u>B3</u>	<u>B-</u>
<u>17</u>	<u>CCC+/CCC/CCC-</u>	<u>Caa1/Caa2/Caa3</u>	<u>CCC+/CCC/CCC-</u>
<u>18</u>	<u>Below CCC-</u>	<u>Below CCC-</u>	<u>Below CCC-</u>

Table 7R-3 – Credit Quality Grades for SA(SE) Exposures and IRBA(SE) Exposures

Credit Quality Grade	1	2	3	4	5	6	7	8	9	10	11	12
Fitch Ratings	AAA	AA+ AA AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+ B B- CCC+ CCC CCC- CC C D
Moody's Investors Services	Aaa	Aa1 Aa2 Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1 B2 B3 Caa1 Caa2 Caa3

												Ca €
Standard & Poor's Ratings Services	AAA	AA+ AA AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+ B B- CCC+ CCC CCC- CC C D

[MAS Notice 637 (Amendment) 2014]

Table 7R-4 - Credit Quality Grades for Short-term ~~SA(SE)~~ Exposures and Short-term ~~IRBA(SE)~~ SEC-ERBA Exposures

Short-term Credit Quality Grade	I	II	III	IV
Fitch Ratings	F-1	F-2	F-3	Others
Moody's Investors Services	P-1	P-2	P-3	Others
Standard & Poor's Ratings Services	A-1	A-2	A-3	Others

[MAS Notice 637 (Amendment) 2014]

Table 7R-5 - Claims Paying Ability Grades for AMA Exposures

Claims Paying Ability Grade	1
Fitch Ratings	AAA, AA, A
Moody's Investor Services	Aaa, Aa, A1, A2
Standard & Poor's Ratings Services	AAA, AA, A+, A

[MAS Notice 637 (Amendment) 2014]

QUALIFYING MDBs

“Qualifying MDBs” means:

- (a) the African Development Bank;
- (b) the Asian Development Bank;
- (c) the Asian Infrastructure Investment Bank;
- ~~(ed)~~ the Caribbean Development Bank;
- ~~(de)~~ the Council of Europe Development Bank;
- ~~(ef)~~ the European Bank for Reconstruction and Development;
- ~~(fg)~~ the European Investment Bank;
- ~~(gh)~~ the European Investment Fund;
- ~~(hi)~~ the Inter-American Development Bank;
- (j) the International Development Association;
- ~~(ik)~~ the Islamic Development Bank;
- ~~(jl)~~ the Nordic Investment Bank;
- ~~(km)~~ the International Finance Facility for Immunisation; or
- ~~(ln)~~ the World Bank Group, including the International Bank for Reconstruction and Development, the International Finance Corporation and the Multilateral Investment Guarantee Agency.

CALCULATION OF M**Section 1: Calculation of M for IRBA Wholesale Asset Class**

1.1 Subject to Sections 2 to 5 below, a Reporting Bank adopting the F-IRBA or A-IRBA for an exposure that falls within the IRBA wholesale asset class, shall calculate the M in years for that exposure based on the contractual cash flow schedule for that exposure in accordance with the following formula:

$$M = \sum_t t \times CF_t / \sum_t CF_t$$

where “CF_t” denotes the cash flows (including principal, interest payments and fees) contractually payable by the obligor in period t, subject to the following:

- (a) M shall be no greater than five years; and
- (b) M shall be no lower than one year.

Section 2: Calculation of M for OTC Derivative Transactions, Long Settlement Transactions and SFTs Covered by Qualifying Bilateral Netting Agreements

2.1 Subject to Sections 3 to 5 below, a Reporting Bank adopting the F-IRBA or A-IRBA for any OTC derivative transaction, long settlement transaction or SFT that fall within the IRBA wholesale asset class and that are subject to a qualifying bilateral netting agreement, shall calculate the M in years for all the transactions to a single counterparty as follows:

- (a) calculate the M in years for each transaction with the counterparty in accordance with paragraph 1.1 above; and
- (b) calculate M in accordance with the following formula:

$$M = \sum_i M_i \times \frac{N_i}{N}$$

where “N_i” denotes the notional amount of each transaction and N denotes the notional amount of all the transactions covered by the qualifying bilateral netting agreement

Section 3: Calculation of M for CCR Internal Models Method where the Original Maturity of the Longest-Dated Contract Exceeds One Year

3.1 Subject to Sections 4 and 5 below, a Reporting Bank using the CCR internal models method shall calculate the M for netting sets in which the original maturity of the longest-dated contract within the set is greater than one year as follows:

$$M^{329} = \frac{\sum_{k=1}^{t_k \leq 1 \text{ year}} \text{Effective } EE_k \times \Delta t_k \times df_k + \sum_{k=1}^{\text{maturity}} \text{Effective } EE_k \times \Delta t_k \times df_k}{\sum_{k=1}^{t_k \leq 1 \text{ year}} \text{Effective } EE_k \times \Delta t_k \times df_k}$$

where “df_k” is the risk-free discount factor for future time period t_k.

3.2 M calculated in accordance with paragraph 3.1 shall be no greater than five years and shall be no lower than one year.

Section 4: Calculation of M for Short-term Exposures

4.1 Notwithstanding paragraphs 1.1 and 2.1 above and subject to paragraphs 4.4 and 5.1 below, a Reporting Bank adopting the CCR internal models method, or the F-IRBA or A-IRBA for a short-term exposure that falls within the IRBA wholesale asset class, may calculate M in years for that exposure in accordance with the following formula:

$$M = \sum_t t \times CF_t / \sum_t CF_t$$

where “CF_t” denotes the cash flows (including principal, interest payments and fees) contractually payable by the obligor in period t, subject to the following:

- (a) M shall be no greater than five years; and
- (b) M shall be at least one day.

4.2 For the purposes of paragraph 4.1 above, a short-term exposure means any self-liquidating issued and confirmed letter of credit that has an original maturity of less than one year, or any one of the following exposures that is transaction-oriented, has an original maturity of less than one year and does not form part of the ongoing financing of an obligor by a Reporting Bank –

- (a) any OTC derivative transaction and margin lending transaction;

³²⁹ M shall be adjusted to reflect rollover risk by replacing EE with effective EE for forecasting horizons under one year. Rollover risk is the amount by which EPE is understated when future transactions with a counterparty are expected to be conducted on an ongoing basis, but the additional exposure generated by the future transactions is not included in calculation of EPE.

- (b) any repo-style transaction (i.e. repo, reverse repo, securities lending or securities borrowing transaction);

[MAS Notice 637 (Amendment) 2012]

- (c) any short-term loan and deposit, including any negotiable certificates of deposit;
- (d) any short-term self-liquidating trade transaction other than issued and confirmed letters of credit. These transactions could be accounted for at their actual remaining maturity;
- (e) any exposure arising from settling the purchase and sale of securities. This could also include any overdraft arising from failed securities settlements provided that such an overdraft does not continue for more than a short, fixed number of business days;
- (f) any exposure arising from cash settlements by wire transfer, including any overdraft arising from failed transfers provided that such an overdraft does not continue for more than a short, fixed number of business days;
- (g) any exposure to banking institutions arising from foreign exchange or money market transactions; and
- (h) any exposure to central governments and central banks that are denominated and funded in the local currency of that jurisdiction.

4.3 For transactions referred to in paragraph 4.2(a) and (b), the documentation applicable to the exposure shall require daily remargining and daily revaluation and provide for the prompt liquidation or setoff of collateral in the event of default or failure to remargin.

4.4 Notwithstanding paragraphs 2.1, 3.1 and 4.1 above and subject to Section 5 below, a Reporting Bank adopting the F-IRBA or A-IRBA for an OTC derivative transaction, long settlement transaction or SFT that qualifies as a short-term exposure as defined in paragraph 4.2 above, fall within the IRBA wholesale asset class and is subject to a qualifying bilateral netting agreement or a qualifying cross-product netting agreement shall calculate the M in years for all the transactions to a single counterparty as follows:

- (a) calculate the M in years for each transaction with the counterparty in accordance with paragraph 4.1 above; and
- (b) calculate M in accordance with the following formula:

$$M = \sum_i M_i \times \frac{N_i}{N}$$

where –

- (i) “N_i” refers to the notional amount of each transaction;

- (ii) "N" refers to the notional amount of all the transactions covered by the qualifying bilateral netting agreement or qualifying cross-product netting agreement; and
- (iii) "M" is subject to a floor equal to the minimum holding period for the transaction type set out in Table 7J-2 of Annex 7J of Part VII, or where there is more than one transaction type, a floor equal to the highest holding period.

Section 5: Calculation of M using Residual Contractual Maturity

5.1 A Reporting Bank which is not able to calculate M in accordance with Sections 1 to 4 above shall use a more conservative measure of M such as the maximum remaining time (in years) that the obligor is permitted to take to fully discharge its contractual obligation (including principal, interest, and fees) under the terms of the agreement giving rise to the obligation³³⁰, subject to a minimum M of one year and a cap on M of five years.³³¹

Section 6: Calculation of M for Securitisation Exposures

6.1 Subject to paragraphs 6.2 and 6.3, a Reporting Bank shall calculate the tranche maturity M_T of a securitisation exposure –

- (a) as the weighted-average maturity of the contractual cash flows of the tranche, in accordance with the following formula –

$$M_T = \frac{\sum_t t \cdot CF_t}{\sum_t CF_t}$$

where "CF_t" denotes the cash flows (including principal, interest payments and fees) contractually payable by the obligor in period t. The contractual cash flows shall be unconditional and shall not be dependent on the actual performance of the underlying exposures; or

- (b) on the basis of the final legal maturity of the tranche, in accordance with the following formula –

$$M_T = 1 + (M_L - 1) \cdot 80\%$$

where "M_L" is the final legal maturity of the tranche.

6.2 The Reporting Bank shall calculate tranche maturity on the basis of the final legal maturity in accordance with paragraph 6.1(b), if unconditional contractual payment dates are not available.

6.3 The Reporting Bank shall subject the tranche maturity calculated in accordance with paragraph 6.1 to a cap of five years and a floor of one year.

³³⁰ In some instances, this will correspond to the notional maturity of the instrument.

³³¹ The one-year maturity floor shall not apply to short-term exposures as defined in paragraph 4.2 of this Annex.

6.4 In calculating M_T , a Reporting Bank shall take into account the maximum period of time it is exposed to potential losses from the underlying exposures –

- (a) where the Reporting Bank provides a commitment to a securitisation transaction, the Reporting Bank shall calculate M_T of the securitisation exposure resulting from this commitment as the sum of the contractual maturity of the commitment and the longest maturity of the underlying exposures to which the Reporting Bank would be exposed after a draw on the commitment has occurred. If the underlying exposures are revolving, the Reporting Bank shall apply the longest contractually possible remaining maturity of the asset that might be added to the underlying pool during the revolving period, rather than the longest maturity of the assets currently in the underlying pool;
- (b) where the Reporting Bank provides any other instrument to a securitisation transaction resulting in a securitisation exposure to the Reporting Bank that is not limited to losses realised until the maturity of that instrument (e.g. total return swaps), the Reporting Bank shall calculate M_T of the securitisation exposure resulting from this instrument in accordance with sub-paragraph (a); and
- (c) where the Reporting Bank provides a credit protection instrument to a securitisation transaction resulting in a securitisation exposure to the Reporting Bank that is limited to losses that occur up to the maturity of the instrument provided, the Reporting Bank shall calculate M_T of the securitisation exposure resulting from this instrument as the contractual maturity of the instrument. The Reporting Bank shall not look through to the protected position in the calculation of M_T .

IRBA ROLLOUT PARAMETERS

Section 1: IRBA Coverage

1.1 A Reporting should observe the parameters set out in this Annex in its IRBA rollout.

1.2 A Reporting Bank should adopt the IRBA across the entire banking group, except for business units, asset classes or asset sub-classes excluded under permitted exclusions in paragraphs 4.1 to 4.8 below, and exposures to CCPs for which CCP RWA is calculated in accordance with paragraph 7.1.1(d) of Sub-division 1 of Division 1 of this Part. The credit RWA for exposures to CCPs arising from any OTC derivative transaction, exchange-traded transaction or SFT shall be calculated in accordance with paragraph 7.1.1(d) of Division 1 of this Part, regardless of materiality.

[MAS Notice 637 (Amendment) 2012]

1.3 The Authority recognises that a simultaneous rollout across all material asset classes may not be practicable in all circumstances. As such, the Authority may permit phased rollouts in certain cases. Notwithstanding this, the Authority will generally not permit a Reporting Bank to adopt the IRBA unless it is able to do so meaningfully from its IRBA adoption date. In a case where a phased rollout is permitted by the Authority, the initial rollout should account for the banking group's most significant portfolios in terms of size and risk profile. At minimum, the Authority expects a Reporting Bank to transition exposures that attract at least 60% to 70% of its capital requirements for credit risk at the Group level to the IRBA from the IRBA adoption date. This percentage is to be computed based on the exposures and the approaches of the Reporting Bank that are in use as at the start of the recognised parallel run³⁶⁷.

1.4 To minimise the risk of capital arbitrage, the Reporting Bank should ensure that –

- (a) all corporate exposures (including exposures in the corporate small business asset sub-class and SL asset sub-class, but not necessarily exposures in the sovereign asset sub-class and bank asset sub-class) within a given jurisdiction transition to the IRBA simultaneously^{367A};
- (b) all retail exposures within a given jurisdiction transition to the IRBA simultaneously; and

³⁶⁷ By way of example, a Reporting Bank adopting F-IRBA on 1 Jan 2008 shall compute this threshold by dividing the RWA calculated in paragraph 7.1.1(b) for exposures transitioning to the IRBA on 1 Jan 2008 by the sum of (a) the RWA calculated in paragraph 7.1.1(b) for exposures transitioning to the IRBA on 1 Jan 2008 and (b) the RWA calculated in paragraph 7.1.1(a) for exposures that are permitted to be excluded from the IRBA. Equity exposures excluded from IRBA(EQ) as set out in paragraph 4.8 of this Annex and exposures to CCPs for which CCP RWA is calculated in accordance with paragraph 7.1.1(d) of Sub-division 1 of Division 1 of this Part are to be excluded from the computation of this threshold.

[MAS Notice 637 (Amendment) 2012]

^{367A} A Reporting Bank shall adopt the IRBA for the HVCRE asset class only if it has adopted the IRBA for the IPRE lending exposures under the SL asset sub-class, where its IPRE lending exposures are material.

- (c) asset classes across jurisdictions in which the Reporting Bank operates, where arbitrage opportunities may be created by a phased IRBA rollout (e.g. large corporates), transition to the IRBA simultaneously.

1.5 During the rollout period, capital relief shall not be granted for intra-group transactions which are designed to reduce a banking group's aggregate capital charge by transferring credit risk among entities on the standardised approach, foundation and advanced IRB approaches. Such transactions include, but are not limited to, asset sales or cross guarantees.

Section 2: IRBA Rollout Plan

[MAS Notice 637 (Amendment No. 2) 2014]

2.1 A Reporting Bank shall, in its application to the Authority to adopt the IRBA pursuant to paragraph 7.4.1 of Part VII, submit an IRBA rollout plan, specifying to what extent and when it intends to rollout the IRBA across business units, asset classes or asset sub-classes of the banking group. A Reporting Bank which has been permitted to rollout the IRBA in a phased manner should –

- (a) provide reasonable assurances to the Authority that all remaining exposures, except those that are permitted to be excluded from the IRBA, will be brought onto the IRBA steadily;
- (b) complete its IRBA rollout across the entire banking group within two years of the IRBA adoption date, save in exceptional circumstances such as a significant merger or acquisition;
- (c) be able to demonstrate that its IRBA rollout plan is driven by the practicality and feasibility of moving to the IRBA, and not minimisation of its capital requirements.

[MAS Notice 637 (Amendment No. 2) 2014]

Section 3: IRBA Rollout Relative to Advanced Approaches for Other Risks

3.1 A Reporting Bank should not apply for approval to adopt the A-IRBA unless –

- (a) where market risk is significant for the banking group, it has adopted or applied for approval to adopt the IMA for market risk; and
- (b) it is able to demonstrate progress towards the eventual adoption of the AMA for operational risk.

Section 4: Permitted Exclusions

4.1 A Reporting Bank adopting the IRBA may, with the approval of the Authority, exclude certain exposures from the IRBA, IRBA(EQ) or ~~IRBA(SE)~~SEC-IRBA as described in this Section. The Reporting Bank shall use the SA(CR), SA(EQ), ~~SEC-ERBA~~ or ~~SA(SE)~~SEC-

[SA](#) to calculate the credit risk-weighted exposure amounts for such exposures from its IRBA adoption date.³⁶⁸ In such cases, the Authority may require the Reporting Bank to maintain additional capital under Part X.

4.2 Unless they have been classified as an immaterial asset class, exposures in the sovereign asset sub-class and bank asset sub-class may not be excluded from the IRBA.

Exclusions for Non-equity Exposures

4.3 Beyond the end of the rollout period, a Reporting Bank may exclude from the IRBA only business units, asset classes or asset sub-classes that are immaterial in size and risk profile. These have to be specifically approved for exclusion by the Authority and approval may be revoked if the excluded portfolios become significant. For the avoidance of doubt, the assessment of materiality for the purposes of paragraphs 4.3 to 4.7 does not take into account exposures to CCPs for which CCP RWA is calculated in accordance with paragraph 7.1.1(d) of Sub-division 1 of Division 1 of this Part.

[MAS Notice 637 (Amendment) 2012]

4.4 A Reporting Bank shall show why the business unit, asset class or asset sub-class it proposes to exclude from the IRBA is considered to be immaterial both in terms of size and risk profile. As business unit boundaries are not specified in this Notice, the Reporting Bank shall also show how it defines the boundaries of a putative immaterial business unit and how it allocate exposures to that business unit on an on-going basis.

4.5 When approving exclusions, the Authority will consider not only compliance with the overall limit as specified in paragraph 4.7 below but also risk concentrations that may be present in excluded portfolios.

4.6 Where the Authority grants approval for a Reporting Bank to exclude a business unit, asset class or asset sub-class from the IRBA, the exclusion applies to the entire business unit, asset class or asset sub-class within a given jurisdiction. The Reporting Bank shall not be permitted to classify only some exposures within a business unit, asset class or asset sub-class as immaterial.

4.7 On a continuing basis, the Reporting Bank should ensure that the aggregate credit risk capital requirements of the business units, asset classes, and asset sub-classes excluded from the IRBA do not exceed 15% of the capital requirements for credit risk of the Reporting Bank at the Group level. In determining compliance with this threshold, the approaches then in use for calculating the CET1 CAR, Tier 1 CAR and Total CAR of the Reporting Bank shall be used. Equity exposures excluded from the IRBA(EQ), as set out in paragraph 4.8 below, and exposures to CCPs for which CCP RWA is calculated in accordance with paragraph 7.1.1(d) of Sub-division 1 of Division 1 of this Part, are to be excluded from both the numerator and the denominator in the computation of this threshold.

[MAS Notice 637 (Amendment) 2012]

[MAS Notice 637 (Amendment No. 2) 2014]

³⁶⁸ A Reporting Bank may use the SA(CR), SA(EQ), [SEC-ERBA](#) or [SA\(SE\)SEC-SA](#) to calculate the credit risk-weighted exposure amounts for long settlement transactions on a permanent basis.

Exclusions for Equity Exposures

4.8 A Reporting Bank may exclude its equity exposures from the IRBA(EQ) if they are immaterial. Equity exposures shall be considered as material if their aggregate value exceeds, on average over the prior year, 10% of the Eligible Total Capital of the Reporting Bank. This materiality threshold shall be lowered to 5% of the Eligible Total Capital of the Reporting Bank if the equity portfolio consists of less than 10 individual holdings.

Section 5: Treatment of Pre-Transition Exposures

5.1 A Reporting Bank shall use the SA(CR), SA(EQ), [SEC-ERBA](#) or [SA\(SE\)SEC-SA](#) to calculate the credit risk-weighted exposure amounts for exposures that have yet to transition to the IRBA, IRBA(EQ) or [IRBA\(SE\)SEC-IRBA](#) from 1 Jan 2008.

REQUIREMENTS FOR EXCLUSION OF SECURITISED EXPOSURES FROM THE CALCULATION OF CREDIT RWA

Section 1: Traditional Securitisation

1.1 In the case of a traditional securitisation, a Reporting Bank may exclude securitised exposures from its calculation of credit RWA only if all of the following requirements have been complied with:

- (a) except as provided for in sub-paragraph (h)(i) below, significant credit risk associated with the underlying exposures has been transferred to third parties^{368A};
- (b) the Reporting Bank does not have any effective control³⁶⁹ over the underlying exposures;
- (c) the Reporting Bank obtains a written legal opinion from its legal advisors confirming that the underlying exposures are beyond the reach of the Reporting Bank and its creditors, even in an insolvency situation or receivership;
- (d) the securities issued pursuant to the securitisation are not obligations of the Reporting Bank and any investor who purchases the securities shall only have a claim to the underlying exposures;
- (e) the securities are issued pursuant to the securitisation by an SPE and the holders of the securities have the right to pledge, transfer or sell their interests without restriction;
- (f) where a securitisation includes a clean up call, the call complies with the requirements set out in Section 3 of this Annex;
- (g) where a securitisation includes early amortisation provisions, the provisions do not result in the securitisation transaction contravening the requirements set out in Section 4 of this Annex;
- (g)-(h) the documentation of the securitisation does not contain any clauses that –
 - (i) other than clean-up calls, obliges the Reporting Bank to repurchase any of the underlying exposures, at any time, except where that

^{368A} The Reporting Bank shall consider material costs of credit protection purchased that have not yet been recognised in earnings as a retained position of the Reporting Bank. These costs could be quantified through an appropriately conservative present value calculation.

³⁶⁹ A Reporting Bank is deemed to have effective control over the transferred exposures if –

(a) it is able to repurchase from the transferee the previously transferred exposures in order to realise their benefits; or

(b) it is obligated to retain the risk of the transferred exposures.

In this regard, a Reporting Bank acting as a servicer in respect of the transferred exposures will not necessarily constitute effective control of the exposures.

obligation arises from the exercise of a representation or warranty given by the Reporting Bank. The Reporting Bank may give a representation or warranty solely in respect of the nature or existing state of facts of any underlying exposure, that is capable of being verified, at the time of its transfer³⁷⁰;

- (ii) requires the Reporting Bank to alter ~~systematically~~ the underlying exposures such that the ~~weighted average~~ credit quality of the pool is improved unless this is achieved by selling exposures to independent third parties which are not related corporations or affiliates of the Reporting Bank, at market prices³⁷¹;

[MAS Notice 637 (Amendment No. 2) 2014]

- (iii) allows for increases in a retained first loss position or credit enhancement provided by the Reporting Bank after the inception of the securitisation; ~~or~~

- (iv) ~~other than step-up features incorporated in relation to the underlying exposures of the securitisation,~~ increases the yield payable to parties other than the Reporting Bank, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying exposures; or

- (v) allow for termination options or triggers for termination, except for eligible clean-up calls or termination triggered by specific changes in tax or regulations;

- ~~(h)-(i)~~ (i) the transfer of the underlying exposures or the transfer of risk through sub-participation does not contravene the terms and conditions of any underlying agreement in respect of the underlying exposures and where applicable, all the necessary consents for the transfer or sub-participation have been obtained;

- ~~(j)-(j)~~ (j) the documentation of the securitisation specifies that, if cash flows relating to the underlying exposures are rescheduled or renegotiated, the SPE and not the Reporting Bank, would be subject to the rescheduled or renegotiated terms;

- ~~(j)-(k)~~ (k) the Reporting Bank receives a fixed amount of consideration³⁷² for the underlying exposures; ~~and~~

³⁷⁰ In addition, the Reporting Bank shall undertake appropriate due diligence prior to giving any such representation or warranty.

³⁷¹ For avoidance of doubt, this requirement does not preclude the substitution of non-defaulted assets which have been fully amortised.

³⁷² For avoidance of doubt, the amount of consideration received in the form of a fixed amount of securities in the SPE would generally be regarded as meeting this requirement if the transaction is conducted at arm's length and on market terms and conditions. Also, this requirement does not preclude excess cash from being channeled to the Reporting Bank after all claims connected with the securities issued by the SPE have been paid out.

- ~~(k) (l) the Reporting Bank holds not more than 20% of the aggregate original amount of all securities issued by the SPE^{372A}, and all transactions with the SPE are conducted at arm's length and on market terms and conditions³⁷³; and~~
- (m) the RWA of the Reporting Bank's exposures to the securitisation is at all times not more than 20% of the sum of the RWA of all the securitisation exposures of the securitisation.

1.2 Notwithstanding paragraph 1.1(m), a Reporting Bank shall consult the Authority if it intends to hold more than 20% of the sum of the RWA of all securitisation exposures of the securitisation. The Authority may allow the Reporting Bank to exclude securitised exposures from its calculation of credit RWA if the Reporting Bank can demonstrate to the Authority's satisfaction that a significant portion of the credit risk associated with the underlying exposures has been transferred to third parties, and the requirements in paragraph 1.1(a) to (l) have been complied with.

Section 2: Synthetic Securitisation

2.1 In the case of a synthetic securitisation, a Reporting Bank may recognise the credit protection obtained through the synthetic securitisation in its calculation of credit RWA only if all of the following requirements have been complied with:

- (a) the Reporting Bank transfers ~~all~~ significant credit risk associated with the underlying exposures to third parties^{373A};
- (b) the instrument used to transfer credit risk does not contain terms or conditions that limit the amount of credit risk transferred, such as clauses that –
 - (i) materially limits ~~the credit protection or credit risk transference~~^{373B} ~~(e.g. significant materiality thresholds below which credit protection is deemed not to be triggered even if a credit event occurs, or those that allow for the termination of the credit protection due to deterioration in the credit quality of the underlying exposures);~~

^{372A} ~~The Reporting Bank shall consult the Authority if it intends to hold more than 20% of the aggregate original amount of all securities issued by the SPE, where such holdings comprise entirely of securities that have a credit rating grade or inferred rating of "1" as set out in Table 7R-3 of Annex 7R of Part VII. The Reporting Bank shall be able to demonstrate that a significant portion of the credit risk and nominal value associated with the underlying exposures of the securitisation has been transferred to third parties.~~

³⁷³ This requirement does not apply where a Reporting Bank acquires securities in the SPE pursuant to an underwriting arrangement, provided that the Reporting Bank complies with the 20% limit no later than 8 weeks after the date on which the securities were acquired. The Reporting Bank shall calculate its credit RWA or market RWA for the securities acquired pursuant to the underwriting arrangement in accordance with Sub-division 6 of Division 1 of this Part or Sub-division 2 of Division 1 of Part VIII respectively.

^{373A} A Reporting Bank shall consider material costs of credit protection purchased that have not yet been recognised in earnings as a retained position of the Reporting Bank. These costs could be quantified through an appropriately conservative present value calculation.

^{373B} For instance, by way of an early amortisation provision in a securitisation of revolving credit facilities that effectively subordinates the Reporting Bank's interest, significant materiality thresholds below which credit protection is deemed not to be triggered even if a credit event occurs, or clauses that allow for the termination of the credit protection due to deterioration in the credit quality of the underlying exposures.

- (ii) requires the Reporting Bank to alter the underlying exposures to improve the ~~weighted~~ average credit quality of the pool³⁷⁴;
 - (iii) increases the cost of credit protection to the Reporting Bank in response to deterioration in the credit quality of the underlying exposures;
 - (iv) increase the yield payable to parties other than the Reporting Bank, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying exposures; or
 - (v) allows for increases in a retained first loss position or credit enhancement provided by the Reporting Bank after the inception of the securitisation;
- (c) the Reporting Bank obtains a written legal opinion from its legal advisors that confirms the enforceability of the contracts in all relevant jurisdictions;
- (d) where a securitisation includes a clean up call, the call complies with the requirements set out in Section 3 of this Annex; ~~and~~
- (e) when a securitisation includes early amortisation provisions, the provisions do not result in the securitisation transaction contravening the requirements set out in Section 4 of this Annex; and
- ~~(e)~~(f) in the case where the risks associated with the underlying exposures are transferred to an SPE -
- (i) the securities issued by the SPE are not obligations of the Reporting Bank;
 - (ii) the holders of the beneficial interests in that SPE have the right to pledge or exchange their interests without restriction; and
 - (iii) ~~the Reporting Bank holds not more than 20% of the aggregate original amount of all securities issued by the SPE^{372A} and all~~ transactions with the SPE are conducted at arm's length and on market terms and conditions³⁷⁵; and
- (g) the RWA of the Reporting Bank's exposures to the securitisation is at all times not more than 20% of the sum of the RWA of all the securitisation exposures of the securitisation.

³⁷⁴ For avoidance of doubt, this requirement does not preclude the substitution of non-defaulted assets which have been fully amortised.

³⁷⁵ This requirement does not apply where a Reporting Bank acquires securities in the SPE pursuant to an underwriting arrangement, provided that the Reporting Bank complies with the 20% limit no later than 8 weeks after the date on which the securities were acquired. The Reporting Bank shall calculate its credit RWA or market RWA for the securities acquired pursuant to the underwriting arrangement in accordance with Sub-division 6 of Division 1 of Part VII or Sub-division 2 of Division 1 of Part VIII respectively.

2.2 Notwithstanding paragraph 2.1(g), a Reporting Bank shall consult the Authority if it intends to hold more than 20% of the sum of the RWA of all the securitisation exposures of the securitisation. The Authority may allow the Reporting Bank to exclude securitised exposures from its calculation of credit RWA if the Reporting Bank can demonstrate to the Authority's satisfaction that a significant portion of the credit risk associated with the underlying exposures has been transferred to third parties, and the requirements in paragraph 2.1(a) to (f) have been complied with.

Section 3: Securitisation Containing Clean-Up Calls

3.1 If a securitisation includes a clean-up call, the Reporting Bank which has the ability to exercise the clean-up call shall ensure that –

- (a) the exercise of the clean-up call is at its discretion and is not mandatory, in form or in substance;
- (b) the clean-up call is not structured to avoid allocating losses to credit enhancements or positions held by investors or in any way structured to provide credit enhancement; and
- (c) the clean-up call is exercisable by the Reporting Bank only when 10% or less of the original underlying exposures or securities issued remain or, for synthetic securitisation, when 10% or less of the original reference portfolio value remains.

3.2 Where a clean-up call, when exercised, is found to serve as a credit enhancement, the Reporting Bank shall consider the exercise of the clean-up call as a form of implicit support and treat it in accordance with paragraph ~~7.6.10 of Sub-division 3 of Division 6 of this Part~~7.6.85.

3.3 Where a securitisation includes a clean-up call which does not meet the all of the criteria in paragraph 3.1, a Reporting Bank which is an ~~ABCP programme sponsor or~~ originator of in the securitisation shall –

- (a) in the case of a traditional securitisation, treat the underlying exposures as if they were not securitised. Additionally, the Reporting Bank shall deduct from Common Equity Tier 1 capital any increase in equity capital due to a not recognise as equity any gain-on-sale in accordance with paragraph ~~7.6.16 of Sub-division 3 of Division 6 of this Part~~6.1.3(f); and

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- (b) in the case of a synthetic securitisation, hold capital against the entire amount of the securitised exposure as if the Reporting Bank did not benefit from any credit protection.

3.4 Where a synthetic securitisation incorporates a call (other than a clean-up call) that effectively terminates the transaction and the purchased credit protection on a specific date, the Reporting Bank which is an ~~ABCP programme sponsor or~~ originator in of the

synthetic securitisation shall treat the transaction in accordance with paragraphs [7.6.87](#) and [7.6.88](#) ~~7.6.8 and 7.6.8A of Sub-division 2 of Division 6 of this Part and Section 6 of Annex 7F of Part VII.~~

Section 4: Securitisation Containing Early Amortisation Provisions

4.1 A Reporting Bank shall be deemed not to have met the requirements for exclusion of securitised exposures set out in Section 1 and Section 2 of this Annex, and shall not exclude securitised exposures from the calculation of credit RWA if –

- (a) the securitisation originated by the Reporting Bank is a securitisation of one or more revolving credit facilities in the underlying pool; and
- (b) the securitisation transaction incorporates an early amortisation provision or similar provision that, if triggered, would –
 - (i) subordinate the Reporting Bank’s senior or pari passu interest in the underlying revolving credit facilities to the interest of other investors;
 - (ii) subordinate the Reporting Bank’s subordinated interest to an even greater degree relative to the interests of other parties; or
 - (iii) in other ways increase the Reporting Bank’s exposure to losses associated with the underlying revolving credit facilities.

4.2 Notwithstanding paragraph 4.1 of this Annex, a Reporting Bank may exclude securitised exposures from the calculation of credit RWA if the securitisation transaction meets the operational requirements in Section 1 (for a traditional securitisation) and Section 2 (for a synthetic securitisation) of this Annex, and contains one of the following early amortisation provisions –

- (a) replenishment structures where the underlying exposures do not revolve and the early amortisation terminates the ability of the Reporting Bank to add new exposures;
- (b) transactions of revolving credit facilities containing early amortisation features that mimic term structures (i.e. where the risk on the underlying facilities does not return to the Reporting Bank) and where the early amortisation provisions do not effectively result in subordination of the Reporting Bank’s interest;
- (c) structures where the Reporting Bank securitises one or more revolving credit facilities and where investors remain fully exposed to future draws by borrowers even after an early amortisation event has occurred; or
- (d) the early amortisation clause is triggered solely by events not related to the performance of the securitised assets or the Reporting Bank, such as material changes in tax laws or regulations.

OPERATIONAL REQUIREMENTS FOR USE OF SEC-ERBA

Section 1: Operational Requirements for Use of External Credit Assessments

1.1 A Reporting Bank shall ensure that the following operational criteria are satisfied before it can use external credit assessments to determine risk weights for securitisation exposures –

- (a) the external credit assessments must take into account and reflect the entire amount of credit risk exposure a Reporting Bank has with regard to all payments owed to it^{375A};
- (b) the external credit assessment must be from a recognised ECAI listed in Annex 7RA;
- (c) the external credit assessment, procedures, methodologies, assumptions and the key elements underlying the assessments must be publicly available in an accessible form on a non-selective basis and free of charge³⁷⁶. The external credit assessment shall be included in the ECAI's transition matrix. The ECAI's loss and cash flow analysis of the securitisation transaction and the sensitivity of ratings to changes in the underlying rating assumptions should be publicly available. A Reporting Bank shall not use an external credit assessment that is made available only to the parties to a transaction;
- (d) recognised ECAIs must have a demonstrated expertise in assessing securitisations, which may be evidenced by common and widespread reliance by independent investors on the ECAI's external credit assessments;
- (e) where two or more recognised ECAIs assess the credit risk of the same securitisation exposure differently, paragraph 7.3.4 shall apply;
- (f) where CRM is provided to specific underlying exposures or the entire pool by an eligible protection provider, and is reflected in the external credit assessment assigned to a securitisation exposure, the Reporting Bank shall apply the risk weight associated with that external credit assessment. In order to avoid any double-counting, the Reporting Bank shall not recognise additional CRM in this case;

^{375A} For example, if the Reporting Bank is owed both principal and interest, the assessment must fully take into account and reflect the credit risk associated with timely repayment of both principal and interest.

³⁷⁶ Where the eligible credit assessment is not publicly available free of charge, the ECAI should provide an adequate justification within its own publicly available code of conduct, in accordance with the "comply or explain" nature of the IOSCO's Code of Conduct Fundamentals for Credit Rating Agencies.

- (g) where CRM is provided to specific underlying exposures or the entire pool by a protection provider which is not an eligible protection provider, and the effect of the CRM is reflected in the external credit assessment assigned to a securitisation exposure, the Reporting Bank shall treat the securitisation exposure as unrated;
- (h) where a CRM solely protects a specific securitisation exposure within a given structure and this protection is reflected in the external credit assessment of that securitisation exposure, the Reporting Bank shall treat the exposure as if it is unrated and then recognise the effect of the CRM based on the CRM treatment for SA(CR) or F-IRBA exposures to recognise the hedge; and
- (i) where the external credit assessment of a securitisation exposure is at least partly based on unfunded support provided by the Reporting Bank, the Reporting Bank shall treat the securitisation exposure as unrated³⁷⁷.

Section 2: Operational Requirements for Use of Inferred Ratings

2.1 A Reporting Bank shall ensure that the following operational requirements are satisfied before the Reporting Bank can recognise inferred ratings for unrated securitisation exposures in the SEC-ERBA –

- (a) the reference securitisation exposure from which the inferred rating is derived must rank pari passu or be subordinate in all respects to the unrated securitisation exposure. Credit enhancements, if any, must be taken into account when assessing the relative subordination of the unrated securitisation exposure and the reference securitisation exposure³⁷⁸;
- (b) the maturity of the reference securitisation exposure must be equal to or longer than that of the unrated securitisation exposure;
- (c) the Reporting Bank shall update any inferred rating on an ongoing basis to reflect any subordination of the unrated securitisation exposure or changes in the external rating of the reference securitisation exposure; and
- (d) the external rating of the reference securitisation exposure must satisfy the operational requirements for use of external credit assessments in Section 1 of this Annex.

³⁷⁷ For example, if a Reporting Bank buys ABCP where it provides an unfunded securitisation exposure extended to the ABCP programme (e.g. liquidity facility or credit enhancement), and that exposure plays a role in determining the external credit assessment of the ABCP, the Reporting Bank shall treat the ABCP as if it were not rated.

³⁷⁸ For example, if the reference securitisation exposure benefits from any third-party guarantees or other credit enhancements that are not available to the unrated securitisation exposure, the Reporting Bank may not assign an inferred rating to the unrated securitisation exposure based on the reference securitisation exposure.

IAM—INTERNAL ASSESSMENT APPROACH (IAA) FOR SECURITISATION EXPOSURES IN THE BANKING BOOK

Section 1: Eligibility Requirements

1.1 Subject to ~~paragraph 1.2 below and~~ the approval of the Authority, a Reporting Bank may use its internal assessments of the credit quality of the unrated securitisation exposures (such as liquidity facilities and credit enhancements) that the Reporting Bank extends to ABCP programmes to determine its ~~IRBA(SE)~~ capital requirement for those securitisation exposures, provided that –

- (a) the Reporting Bank has obtained the Authority's approval to adopt the IRBA for at least one asset class; and
- (b) the internal assessment process of the Reporting Bank meets the operational requirements set out in paragraph 1.2 of this Annex.

1.1A The Authority may subsequently ~~preclude the Reporting Bank from applying withdraw its approval of the Reporting Bank's use of the IAM-IAA in relation to its ABCP programme exposures, both existing and newly originated, for the purposes of calculating regulatory capital requirements, if the Authority is satisfied that the internal assessment process of the Reporting Bank is no longer considered adequate~~ no longer meets the requirements in paragraph 1.2 of this Annex, until the Reporting Bank has remedied the deficiencies. If a Reporting Bank does not have the Authority's approval to apply the IAA, it shall use the SEC-SA for calculating its capital requirements for the unrated securitisation exposures it extends to ABCP programmes.

1.2 A Reporting Bank shall ensure that ~~the-its~~ internal assessment process meets the following requirements:

- (a) the commercial paper issued by the ABCP programme shall be rated by a recognised ECAI ~~and subject to the RBM in Annex 7AE of Part VII, and the Reporting Bank shall use the SEC-ERBA to risk-weight any exposures it has to the commercial paper;~~
- (b) the Reporting Bank shall consider all publicly available rating methodologies of recognised ECAIs for the type of asset purchased by the programme in developing its internal assessments³⁷⁹. ~~The A~~ Reporting Bank shall not use the rating methodology of the ECAI to derive an internal assessment if the process or rating criteria of the ECAI is not publicly available. ~~The A~~ Reporting Bank should also consider non-publicly available rating methodologies of recognised ECAIs, to the extent that it has access to such

³⁷⁹ In general, if the rating methodologies of an ECAI for an asset are not publicly available, then the ~~IA~~MA may not be used. However, in certain instances, for example, new or uniquely structured transactions which are not currently addressed by the rating criteria of an ECAI rating the ABCP, a Reporting Bank may discuss the specific transaction with the Authority to determine whether the ~~IA~~MA may be applied.

information, in developing its internal assessments, particularly if it leads to more conservative ratings than the publicly available methodologies;

- (c) the internal assessment of the credit quality of a securitisation exposure to the ABCP programme shall be based on the rating criteria of recognised ECAIs for the type of asset purchased by the programme³⁸⁰ and shall be the equivalent of a credit quality grade of “810” or better when initially assigned to the securitisation exposure. The Reporting Bank shall demonstrate to the satisfaction of the Authority that its internal assessments correspond with the relevant standard of the recognised ECAI³⁸⁰;
- (d) the internal assessment of the credit quality of a securitisation exposure to the ABCP programme shall be used in the internal risk management processes of the a-Reporting Bank, including its management information and economic capital systems, and generally shall meet all the relevant requirements of the IRBA framework³⁸¹. The Reporting Bank shall inform the Authority if its internal assessments are unable to meet any of the use test requirements set out in paragraphs 2.7(a) and (b) of Annex 7AB, with the following modifications:
 - (i) “IRBA” is read as referring to IAA; and
 - (ii) “internal ratings and estimates of IRBA parameters” is read as referring to IAA internal ratings;
- (e) the internal assessment process shall identify gradations of risk. and theThe ratings based on internal assessments shall correspond to the external ratings of recognised ECAIs;
- (f) the internal assessment process, particularly the stress factors for determining credit enhancement requirements, shall be at least as conservative as the publicly available rating criteria for the asset type being purchased by the ABCP programme, of recognised ECAIs that have rated the commercial paper issued by the ABCP programme, and -
 - (i) in the case where the commercial paper issued by an ABCP programme is externally rated by two or more recognised ECAIs and the benchmark stress factors of the different ECAIs require different levels of credit enhancement to achieve the same external rating equivalent, the Reporting Bank shall apply the ECAI stress factor that requires the most conservative or highest level of credit

³⁸⁰ ~~The Reporting Bank shall demonstrate to the satisfaction of the Authority that its internal assessments correspond with the relevant standard of the recognised ECAI. For example, in the case of calculating the credit enhancement level using the IAM, the Authority may disallow, on a full or partial basis, any seller-provided recourse guarantee or excess spread, or any other first loss credit enhancements that provide limited protection to the Reporting Bank.~~

³⁸⁰ For example, in the case of the Reporting Bank’s calculation of the credit enhancement level using the IAA, the Authority may disallow, on a full or partial basis, any seller-provided recourse guarantees or excess spread, or any other first loss credit enhancements that provide limited protection to the Reporting Bank.

³⁸¹ ~~The Reporting Bank shall required to assess the ability of their internal assessments to meet the use test requirements set out in paragraph 2.7 of Annex 7AB of Part VII, *mutatis mutandis*, and to inform the Authority if the internal assessment is unable to meet all the relevant requirements.~~

protection³⁸²;

- (ii) when selecting recognised ECAIs to externally rate the commercial paper issued by an ABCP programme, ~~the a~~ Reporting Bank shall not choose only those ECAIs that generally have relatively less restrictive rating methodologies. In addition, if there are changes in the methodology of a selected ECAI, including the stress factors, that adversely affect the external rating of the commercial paper issued by the ABCP programme, then the revised rating methodology shall be considered in evaluating whether the internal assessments assigned to the Reporting Bank's securitisation exposures to the ABCP programme are in need of revision;
- (g) internal or external auditors, a recognised ECAI, or the internal credit review or risk management function of the Reporting Bank shall perform reviews of the internal assessment process at least annually and assess the validity of the internal assessments of the Reporting Bank. If the internal audit, credit review, or risk management functions of the Reporting Bank perform the reviews of the internal assessment process, these functions shall be independent of the ABCP programme business line and the underlying customer relationships;
- (h) the Reporting Bank shall track the performance of its internal assessments over time to evaluate the performance of the assigned internal assessments and make adjustments, as necessary, to its assessment process when the performance of its securitisation exposures to the ABCP programme routinely diverges from the assigned internal assessments on those exposures;
- (i) the ABCP programme shall have credit and investment guidelines^{382A}. ~~for example, in the consideration of an asset purchase, the ABCP programme administrator should develop an outline of the structure of the purchase transaction and consider the type of asset being purchased, the type and monetary value of the exposures arising from the provision of liquidity facilities and credit enhancements, the loss waterfall, and the legal and economic isolation of the transferred assets from the entity selling the assets;~~
- (j) the Reporting Bank shall perform a credit analysis of the risk profile of the asset seller. ~~shall be performed and~~ The credit analysis should consider, for example, past and expected future financial performance, current market position, expected future competitiveness, leverage, cash flow and interest coverage and debt rating. ~~In addition,~~ The Reporting Bank shall perform a

³⁸² For example, if one ECAI required enhancement of 2.5 to 3.5 times historical losses for a type of asset to obtain a single "A" rating equivalent and another required 2 to 3 times historical losses, the Reporting Bank shall use the higher range of stress factors in determining the appropriate level of seller-provided credit enhancement.

^{382A} For instance, in the consideration of an asset purchase, the ABCP programme administrator should develop an outline of the structure of the purchase transaction and consider the type of asset being purchased, the type and monetary value of the exposures arising from the provision of liquidity facilities and credit enhancements, the loss waterfall, and the legal and economic isolation of the transferred assets from the entity selling the assets.

review of the seller's underwriting standards, servicing capabilities, and collection processes ~~should be performed~~;

- (k) the underwriting policy of the ABCP programme shall establish minimum asset eligibility criteria that, among others, excludes the purchase of assets that are significantly past due or defaulted, limits excess concentration to an individual obligor or a geographic area and limits the tenor of the assets to be purchased;
- (l) the ABCP programme shall have collections processes established that consider the operational capability and credit quality of the servicer, ~~and should~~ The ABCP programme shall mitigate to the extent possible seller or servicer risk through various methods, such as triggers based on current credit quality that would preclude commingling of funds and ~~impose~~ lockbox arrangements that would help ensure the continuity of payments to the ABCP programme;
- (m) the aggregate estimate of loss on an asset pool that the ABCP programme is considering purchasing shall take into account all sources of potential risk, such as credit and dilution risk. If the seller-provided credit enhancement is sized based on only credit-related losses and dilution risk is material for the particular exposure pool, then a separate reserve should be established for dilution risk. In addition, in sizing the required enhancement level, the Reporting Bank should review several years of historical information, including losses, delinquencies, dilutions, and the turnover rate of the receivables. Furthermore, the Reporting Bank should evaluate the characteristics of the underlying asset pool, for example, weighted average credit score, any concentrations to an individual obligor or geographic region, and the granularity of the asset pool; and
- (n) the ABCP programme shall incorporate structural features into the purchase of assets in order to mitigate potential credit deterioration of the underlying portfolio, for example, wind-down triggers specific to a pool of exposures.

Section 2: Calculation of Credit Risk-Weighted Exposure Amount

2.1 A Reporting Bank using the ~~IAM-IAA~~ shall calculate the credit-risk weighted exposure amount for an unrated securitisation exposure to an ABCP programme by -

- (a) assigning an internal rating, ~~i.e. mapped to~~ a credit rating equivalent, to the unrated securitisation exposure;
- (b) allocating the risk weight appropriate to the credit rating equivalent assigned to that exposure in accordance with ~~Tables 7AE-1 and 7AE-2 of Annex 7AE of Part VII~~ Tables 7-21 and 7-22, except where the credit rating equivalent is less than investment grade, in which case the Reporting Bank shall apply a 1250% risk weight to the unrated securitisation exposure; and
- (c) applying the formula in paragraph ~~1.1 of Annex 7AE of Part VII~~ 7.1.8.

~~Section 3: Treatment of Securitisation Exposures with a Credit Rating Equivalent of "9" or worse or "IV"~~

~~3.1—A Reporting Bank shall apply a 1250% risk weight to a securitisation exposure if—~~

- ~~(a)—in the case of a short term securitisation exposure, it is assigned a credit rating equivalent to a credit quality grade of "IV" as set out in Table 7R-4 of Annex 7R of Part VII; and~~
- ~~(b)—in the case of other securitisation exposures, it has a credit rating equivalent to a credit quality grade of "9" or worse as set out in Table 7R-3 of Annex 7R of Part VII.~~

CRITERIA FOR SIMPLE, TRANSPARENT AND COMPARABLE (STC) SECURITISATIONS

Section 1: Asset Risk

Nature of Assets

1.1 The Reporting Bank shall ensure that the assets underlying the securitisation are credit claims or receivables that are homogeneous. In assessing homogeneity, the Reporting Bank shall give consideration to asset type, jurisdiction, legal system and currency, in accordance with paragraph 1.3.

1.2 The Reporting Bank shall ensure that credit claims or receivables for the more exotic asset classes have contractually identified periodic payment streams relating to rental³⁸³, principal, interest, or principal and interest payments as such asset classes require deeper and more complex analysis. The Reporting Bank shall ensure that any referenced interest payments or discount rates are based on commonly encountered market interest rates³⁸⁴, but do not reference complex or complicated formulae or exotic derivatives³⁸⁵.

1.3 A Reporting Bank should assess homogeneity by giving consideration to the following –

- (a) The nature of assets should be such that investors would not need to analyse and assess materially different legal or credit risk factors, or both, and risk profiles when carrying out risk analysis and due diligence checks;
- (b) The assets underlying the securitisation should have common risk drivers, including similar risk factors and risk profiles;
- (c) Credit claims or receivables included in the securitisation should have standard obligations, in terms of rights to payments or income, or both, from assets and that result in a periodic and well-defined stream of payments to investors. Credit card facilities should be deemed to result in a periodic and well-defined stream of payments to investors for the purposes of this criterion;

³⁸³ Payments on operating and financing leases are typically considered to be rental payments rather than payments of principal and interest.

³⁸⁴ Commonly encountered market interest rates may include rates reflective of a lender's cost of funds, to the extent that sufficient data are provided to investors to allow them to assess their relation to other market rates. Examples of these include –

(a) interbank rates and rates set by monetary policy authorities, such as Libor, Euribor and the fed funds rate; and

(b) sectoral rates reflective of a lender's cost of funds, such as internal interest rates that directly reflect the market costs of a bank's funding or that of a subset of institutions.

³⁸⁵ The Global Association of Risk Professionals (GARP) defines an exotic instrument as a financial asset or instrument with features making it more complex than simpler, plain vanilla, products. Interest rate caps and/or floors would not be automatically considered exotic derivatives.

- (d) Repayment of noteholders should mainly rely on the principal and interest proceeds from the securitised assets. Partial reliance on refinancing or re-sale of the asset securing the exposure may occur provided that refinancing is sufficiently distributed within the pool, the residual values on which the transaction relies are sufficiently low and the reliance on refinancing is thus not substantial.

Asset Performance History

1.4 In order to provide investors with sufficient information on an asset class to conduct appropriate due diligence and access to a sufficiently rich data set to enable a more accurate calculation of expected loss in different stress scenarios, the Reporting Bank shall ensure that verifiable loss performance data, such as delinquency and default data, is available for credit claims and receivables with substantially similar risk characteristics to those being securitised, for a time period long enough to permit meaningful evaluation by investors, ideally covering a complete economic cycle. The Reporting Bank shall ensure that sources of and access to data and the basis for claiming similarity to credit claims or receivables being securitised are clearly disclosed to all market participants.

1.5 A Reporting Bank shall satisfy itself that originator of the securitisation, as well as the original lender who underwrites the assets, has sufficient experience in originating exposures similar to those securitised.

1.6 A Reporting Bank that is an investor in a securitisation shall satisfy itself that the performance history of the originator and the original lender for substantially similar claims or receivables to those being securitised has been established for an "appropriately long period of time"^{386B}. This performance history must be no shorter than a period of seven years for non-retail exposures. For retail exposures, the minimum performance history is five years.

1.7 As an additional consideration³⁸⁶, a Reporting Bank that is an investor in a securitisation should consider whether the servicer and other parties with a fiduciary responsibility to the securitisation have an established performance history^{386A} for substantially similar credit claims or receivables to those being securitised and for an appropriately long period of time^{386B}.

Payment Status

³⁸⁶ This "additional consideration" may form part of investors' due diligence process, but does not form part of the criteria when determining whether a securitisation can be considered "simple, transparent and comparable".

^{386A} It is not the intention of the criteria to form an impediment to the entry of new participants to the market, but rather that investors should take into account the performance history of the asset class and the transaction parties when deciding whether to invest in a securitisation.

^{386B} A Reporting Bank may take reference from the IRB data requirements contained in paragraphs 1.4B and 1.5B of Annex 7AA to better define the term "appropriately long period of time". These data requirements would apply irrespective of the credit risk approach used to determine capital requirements on the underlying pool.

1.8 Non-performing credit claims and receivables are likely to require more complex and heightened analysis. In order to ensure that only performing credit claims and receivables are assigned to a securitisation, the Reporting Bank shall satisfy itself that credit claims or receivables being transferred to a securitisation do not include, at the time of inclusion in the pool, obligations that are in default or delinquent, or obligations for which the transferor^{386C} or parties to the securitisation^{386D} are aware of evidence indicating a material increase in expected losses or enforcement actions.

1.9 The Reporting Bank shall satisfy itself that the originator does not transfer any credit claims or receivables to the securitisation unless the credit claims or receivables meet the following conditions –

- (a) the obligor has not been the subject of an insolvency or debt restructuring proceedings due to financial difficulties within three years prior to the date of origination, unless the obligor's credit incidents have been removed from credit registries and the obligor belongs to a jurisdiction in which borrowers have the "right to be forgotten"^{386E};
- (b) the obligor is not recorded on a public credit registry of persons with an adverse credit history;
- (c) the obligor does not have a credit assessment by an ECAI or a credit score indicating a significant risk of default; and
- (d) the credit claim or receivable is not subject to a dispute between the obligor and the original lender.

1.10 The Reporting Bank shall satisfy itself that the originator assesses the credit claims or receivables in accordance with paragraph 1.9 above no earlier than 45 days prior to the closing date. In addition, at the time of this assessment, the Reporting Bank shall satisfy itself that the originator has assessed that there is no evidence indicating likely deterioration in the performance status of the credit claim or receivable.

1.11 The Reporting Bank shall satisfy itself that, at the time of the inclusion of the credit claims or receivables in the pool, at least one payment must have been made on the underlying exposures, except in the case of revolving asset trust structures such as those for credit card receivables, trade receivables, and other exposures payable in a single instalment, at maturity.

Consistency of Underwriting

1.12 To ensure that the quality of the securitised credit claims and receivables is not affected by changes in underwriting standards, the Reporting Bank shall satisfy itself that the originator demonstrates to investors that any credit claims or receivables being transferred to the securitisation have been originated in the ordinary course of the

^{386C} Such as the originator.

^{386D} Such as the servicer or a party with a fiduciary responsibility.

^{386E} Such jurisdictions provide legal rights to allow borrowers to remove negative credit records after the passage of a period of time or after certain conditions have been met.

originator's business to materially non-deteriorating underwriting standards.^{386F} Where underwriting standards change, the Reporting Bank shall satisfy itself that the originator will disclose the timing and purpose of such changes before the change. The Reporting Bank shall satisfy itself that the originator does not impose less stringent standards than those applied to credit claims and receivables retained on the originator's balance sheet.

1.13 The Reporting Bank shall satisfy itself that the credit claims or receivables transferred to the securitisation are credit claims or receivables which have satisfied materially non-deteriorating underwriting criteria and are credit claims or receivables:

- (a) for which the obligors have been assessed by the originator as having the ability and volition to make timely payments on obligations; or
- (b) on granular pools of obligors originated in the ordinary course of the originator's business where expected cash flows have been modelled to meet stated obligations of the securitisation under prudently stressed loan loss scenarios.

1.14 In all circumstances, the Reporting Bank shall satisfy itself that all credit claims or receivables are originated in accordance with sound and prudent underwriting criteria based on an assessment that the obligor has the "ability and volition to make timely payments" on its obligations.

1.15 The Reporting Bank shall satisfy itself that where underlying credit claims or receivables have been acquired from third parties, the originator reviews the underwriting standards (i.e. to check their existence and assess their quality) of these third parties and ascertains that these third parties have assessed the obligors' "ability and volition to make timely payments on obligations".

Asset Selection and Transfer

1.16 Whilst recognising that credit claims or receivables transferred to a securitisation will be subject to defined criteria set out in the securitisation documentation^{386G}, the Reporting Bank shall satisfy itself that the performance of the securitisation does not rely upon the ongoing selection of assets through active management^{386H} on a discretionary basis of the securitisation's underlying portfolio. The Reporting Bank shall ensure that credit claims or receivables transferred to a securitisation satisfy clearly defined eligibility criteria set out in the securitisation documentation. The Reporting Bank shall satisfy itself that credit claims or receivables transferred to a securitisation after the closing date are not be actively selected, actively managed or otherwise cherry-picked on a discretionary basis. The Reporting Bank shall ensure that sufficient information on the securitisation is made available to allow investors to assess the credit risk of the asset pool prior to their investment decisions.

^{386F} Investor analysis should be simpler and more straightforward where the securitisation is of credit claims or receivables that satisfy materially non-deteriorating origination standards.

^{386G} Such as the size of the obligation, the age of the borrower or the LTV (loan-to-value) of the property, DTI (debt-to-income) and/or DSC (debt service coverage) ratios.

^{386H} Provided they are not actively selected or otherwise cherry-picked on a discretionary basis, the addition of credit claims or receivables during the revolving periods or their substitution or repurchasing due to the breach of representations and warranties do not represent active portfolio management.

1.17 In order to meet the principle of true sale, the Reporting Bank shall satisfy itself that the securitisation effects true sale such that the underlying credit claims or receivables
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- (a) are enforceable against the obligor and their enforceability is included in the representations and warranties of the securitisation;
- (b) are beyond the reach of the seller, its creditors or liquidators and are not subject to material re-characterisation or clawback risks;
- (c) are not effected through credit default swaps, derivatives or guarantees, but by a transfer^{386I} of the credit claims or the receivables to the securitisation; and
- (d) demonstrate effective recourse to the ultimate obligation for the underlying credit claims or receivables and are not a securitisation of other securitisations.

1.18 In applicable jurisdictions, the Reporting Bank shall ensure that securitisations employing transfers of credit claims or receivables by other means must demonstrate the existence of material obstacles preventing true sale at issuance^{386J} and clearly demonstrate the method of recourse to ultimate obligors^{386K}. In such jurisdictions, the Reporting Bank shall ensure that any conditions where the transfer of the credit claims or receivables is delayed or contingent upon specific events and any factors affecting timely perfection of claims by the securitisation are clearly disclosed.

1.19 The Reporting Bank shall ensure that the originator has provided representations and warranties that the credit claims or receivables being transferred to the securitisation are not subject to any condition or encumbrance that can be foreseen to adversely affect enforceability in respect of collections due.

1.20 The Reporting Bank shall ensure that the claim that the true sale and the transfer of assets under the applicable laws comply with sub-paragraphs (a) through (d) of paragraph 1.17 of this Annex is supported by an independent third party legal opinion.

Initial and Ongoing Data

1.21 To assist investors in conducting appropriate due diligence prior to investing in a new offering, the Reporting Bank shall ensure that sufficient loan-level data in accordance with applicable laws or, in the case of granular pools, summary stratification data on the relevant risk characteristics of the underlying pool is available to potential investors before pricing of a securitisation.

^{386I} The requirement should not affect jurisdictions whose legal frameworks provide for a true sale with the same effects as described above, but by means other than a transfer of the credit claims or receivables.

^{386J} Such as the immediate realisation of transfer tax or the requirement to notify all obligors of the transfer.

^{386K} Such as equitable assignment, or perfected contingent transfer.

1.22 The Reporting Bank shall satisfy itself that timely loan-level data in accordance with applicable laws or granular pool stratification data on the risk characteristics of the underlying pool and standardised investor reports is and will be made readily available to current and potential investors at least on a quarterly basis throughout the life of the securitisation to assist investors in conducting appropriate and ongoing monitoring of their investments' performance and to ensure that investors that wish to purchase a securitisation in the secondary market have sufficient information to conduct appropriate due diligence. The Reporting Bank must ensure that cut-off dates of the loan-level or granular pool stratification data are aligned with those used for investor reporting.

1.23 To provide a level of assurance that the reporting of the underlying credit claims or receivables is accurate and that the underlying credit claims or receivables meet the eligibility requirements, the Reporting Bank shall ensure that the initial portfolio is reviewed^{386L} for conformity with the eligibility requirements by an appropriate legally accountable and independent third party, such as an independent accounting practice or the calculation agent or management company for the securitisation.

Section 2: Structural Risk

Redemption Cash Flows

2.1 Liabilities subject to the refinancing risk of the underlying credit claims or receivables are likely to require more complex and heightened analysis. To ensure that the underlying credit claims or receivables do not need to be refinanced over a short period of time, the Reporting Bank shall satisfy itself that the securitisation does not rely on the sale or refinancing of the underlying credit claims or receivables in order to repay the liabilities, unless the underlying pool of credit claims or receivables is sufficiently granular and has sufficiently distributed repayment profiles. The Reporting Bank shall consider rights to receive income from the assets specified to support redemption payments as eligible credit claims or receivables in this regard^{386M}.

Currency and Interest Rate Asset and Liability Mismatches

2.2 To reduce the payment risk arising from the different interest rate and currency profiles of assets and liabilities and to improve investors' ability to model cash flows, the Reporting Bank shall satisfy itself that the interest rate and foreign currency risks of the securitisation are appropriately mitigated^{386N} at all times, and if any hedging transaction is executed, the Reporting Bank shall ensure that the transaction is documented according to industry-standard master agreements. Subject to paragraph 2.4, the Reporting Bank shall ensure that the securitisation only conduct these hedging transactions with

^{386L} For instance, the review should confirm that the credit claims or receivables transferred to the securitisation meet the portfolio eligibility requirements. The review could, for example, be undertaken on a representative sample of the initial portfolio, with the application of a minimum confidence level. The verification report need not be provided but its results, including any material exceptions, should be disclosed in the initial offering documentation.

^{386M} For example, associated savings plans designed to repay principal at maturity.

^{386N} The term "appropriately mitigated" should be understood as not necessarily requiring a completely perfect hedge.

derivatives used for genuine hedging of asset and liability mismatches of interest rate, currency, or both.

2.3 The Reporting Bank shall satisfy itself that the originator will demonstrate the appropriateness of the mitigation of interest rate and foreign currency through the life of the transaction by making available to potential investors, in a timely and regular manner, quantitative information including the fraction of notional amounts that are hedged, as well as sensitivity analysis that illustrates the effectiveness of the hedge under extreme but plausible scenarios.

2.4 The Reporting Bank shall satisfy itself that if the securitisation does not perform hedges through derivatives, then the securitisation shall only use risk-mitigating measures that are specifically created and used for the purpose of hedging an individual and specific risk, and not multiple risks at the same time (such as credit and interest rate risks). The Reporting Bank shall satisfy itself that non-derivative risk mitigation measures used by the securitisation are fully funded and available at all times.

Payment Priorities and Observability

2.5 To prevent investors being subjected to unexpected repayment profiles during the life of a securitisation, the Reporting Bank shall ensure that the priorities of payments for all liabilities in all circumstances at the time of securitisation are clearly defined, and that a legal opinion on the enforceability of the payment priorities is provided.

2.6 To ensure that junior noteholders do not have inappropriate payment preference over senior noteholders that are due and payable, throughout the life of a securitisation, or, where there are multiple securitisations backed by the same pool of credit claims or receivables, throughout the life of the securitisation programme, the Reporting Bank shall ensure that junior liabilities do not have payment preference over senior liabilities which are due and payable. The Reporting Banks shall ensure that the securitisation is not structured as a "reverse" cash flow waterfall such that junior liabilities are paid where due and payable senior liabilities have not been paid.

2.7 To help provide investors with full transparency over any changes to the cash flow waterfall, payment profile or priority of payments that might affect a securitisation, the Reporting Bank shall ensure that all triggers affecting the cash flow waterfall, payment profile or priority of payments of the securitisation are clearly and fully disclosed in both the offering documents and investor reports, with information in the investor report that clearly identifies the breach status, the ability for the breach to be reversed and the consequences of the breach. The Reporting Bank shall ensure that investor reports contain information that allows investors to monitor the evolution over time of the indicators that are subject to triggers. The Reporting Bank shall also satisfy itself that any triggers breached between payment dates are disclosed to investors on a timely basis in accordance with the terms and conditions of all underlying transaction documents.

2.8 The Reporting Bank shall ensure that securitisations featuring a revolving period include provisions for appropriate early amortisation events and/or triggers of termination of the revolving period, including, notably –

(a) deterioration in the credit quality of the underlying exposures;

- (b) a failure to acquire sufficient new underlying exposures of similar credit quality; and
- (c) the occurrence of an insolvency-related event with regard to the originator or the servicer.

2.9 Following the occurrence of a performance-related trigger, an event of default or an acceleration event, the Reporting Bank shall ensure that the securitisation positions are repaid in accordance with a sequential amortisation priority of payments, in order of tranche seniority, and that there are no provisions requiring immediate liquidation of the underlying assets at market value.

2.10 To assist investors in their ability to appropriately model the cash flow waterfall of the securitisation, the Reporting Bank shall satisfy itself that the originator makes available to investors, both before pricing of the securitisation and on an ongoing basis, a liability cash flow model or information on the cash flow provisions allowing appropriate modelling of the securitisation cash flow waterfall.

2.11 To ensure that debt forgiveness, forbearance, payment holidays and other asset performance remedies can be clearly identified, the Reporting Bank shall ensure that policies and procedures, definitions, remedies and actions relating to delinquency, default or restructuring of underlying debtors are provided in clear and consistent terms, such that investors can clearly identify debt forgiveness, forbearance, payment holidays, restructuring and other asset performance remedies on an ongoing basis.

Voting and Enforcement Rights

2.12 To ensure clarity for securitisation note holders of their rights and ability to control and enforce on the underlying credit claims or receivables upon the insolvency of the originator, the Reporting Bank shall ensure that the originator transfers all voting and enforcement rights related to the credit claims or receivables to the securitisation. The Reporting Bank shall ensure that investors' rights in the securitisation are clearly defined in all circumstances, including the rights of senior versus junior note holders.

Documentation Disclosure and Legal Review

2.13 To help investors to fully understand the terms, conditions, legal and commercial information prior to investing in a new offering^{386O} and to ensure that this information is set out in a clear and effective manner for all programmes and offerings, the Reporting Bank shall ensure that sufficient initial offering^{386P} and draft underlying^{386Q} documentation

^{386O} For the avoidance of doubt, any type of securitisation should be allowed to fulfil the requirements of paragraphs 2.13 and 2.14 of this Annex once it meets its prescribed standards of disclosure and legal review.

^{386P} Such as a draft offering circular, draft offering memorandum, draft offering document or draft prospectus.

^{386Q} Such as a/an asset sale agreement, assignment, novation or transfer agreement; servicing, backup servicing, administration and cash management agreements; trust/management deed, security deed, agency agreement, account bank agreement, guaranteed investment contract, incorporated terms or master trust framework or master definitions agreement as applicable; any relevant inter-creditor agreements, swap or derivative documentation, subordinated loan agreements, start-up loan agreements and liquidity facility agreements; and any other relevant underlying documentation, including legal opinions.

are made available to investors (and readily available to potential investors on a continuous basis) within a reasonably sufficient period of time prior to pricing, or when legally permissible, such that the investor is provided with full disclosure of the legal and commercial information and comprehensive risk factors needed to make informed investment decisions. The Reporting Bank shall also ensure that final offering documents are made available from the closing date and all final underlying transaction documents shortly thereafter. These should be composed such that readers can readily find, understand and use relevant information.

2.14 To ensure that all the securitisation's underlying documentation has been subject to appropriate review prior to publication, the Reporting Bank shall ensure that the terms and documentation of the securitisation are reviewed by an appropriately experienced third party legal practice, such as a legal counsel already instructed by one of the transaction parties, e.g. by the arranger or the trustee. The Reporting Bank shall satisfy itself that investors are notified in a timely fashion of any changes in such documents that have an impact on the structural risks in the securitisation.

Alignment of Interest

2.15 In order to align the interests of those responsible for the underwriting of the credit claims or receivables with those of investors, the Reporting Bank shall ensure that the originator of the credit claims or receivables retains a material net economic exposure and demonstrates a financial incentive in the performance of these assets following their securitisation.

Section 3: Fiduciary and Servicer Risk

Fiduciary and Contractual Responsibilities

3.1 The Reporting Bank shall satisfy itself that servicers in a securitisation have extensive workout expertise, thorough legal and collateral knowledge and a proven track record in loss mitigation. The Reporting Bank shall satisfy itself that –

- (a) the servicer is able to demonstrate expertise in the servicing of the underlying credit claims or receivables, supported by a management team with extensive industry experience;
- (b) the servicer at all times acts in accordance with reasonable and prudent standards;
- (c) the servicer's policies, procedures and risk management controls are well documented and adhere to good market practices and relevant regulatory regimes; and
- (d) the servicer has in place strong systems and reporting capabilities, in accordance with paragraph 3.5 of this Annex.

3.2 The Reporting Bank shall ensure that both the initial offering and all underlying documentation contain provisions facilitating the timely resolution of conflicts between different classes of note holders by the trustees, to the extent permitted by applicable law.

3.3 The Reporting Bank shall satisfy itself that the party or parties with fiduciary responsibility to the securitisation and to investors demonstrate sufficient skills and resources to comply with their duties of care in the administration of the securitisation vehicle, and to act on a timely basis in the best interests of securitisation note holders.

3.4 The Reporting Bank should satisfy itself that remuneration to parties with fiduciary responsibility towards investors and to servicers is such that these parties are incentivised and able to meet their responsibilities in full and on a timely basis.

3.5 In assessing whether “strong systems and reporting capabilities are in place”, well documented policies, procedures and risk management controls, as well as strong systems and reporting capabilities, may be substantiated by a third-party review for non-banking entities.

Transparency to Investors

3.6 To help provide full transparency to investors, assist investors in the conduct of their due diligence and to prevent investors being subject to unexpected disruptions in cash flow collections and servicing, the Reporting Bank shall ensure that the contractual obligations, duties and responsibilities of all key parties to the securitisation, both those with a fiduciary responsibility and of the ancillary service providers, are defined clearly both in the initial offering and all underlying documentation. The Reporting Bank shall ensure that provisions are documented for the replacement of servicers, bank account providers, derivatives counterparties and liquidity providers in the event of failure or non-performance or insolvency or other deterioration of creditworthiness of any such counterparty to the securitisation.

3.7 To enhance transparency and visibility over all receipts, payments and ledger entries at all times, the Reporting Bank shall satisfy itself that the performance reports to investors distinguish and report the securitisation’s income and disbursements, such as scheduled principal, redemption principal, scheduled interest, prepaid principal, past due interest and fees and charges, delinquent, defaulted and restructured amounts under debt forgiveness and payment holidays, including accurate accounting for amounts attributable to principal and interest deficiency ledgers.

3.8 The terms “initial offering” and “underlying transaction documentation” should be understood in the context defined in paragraph 2.13 of this Annex. The term “income and disbursements” should also be understood as including deferment, forbearance, and repurchases among the items described.

Section 4: Additional Criteria

Credit Risk of Underlying Exposures

4.1 At the portfolio cut-off date, the Reporting Bank shall ensure that the underlying exposures meet the conditions under the Standardised Approach for credit risk, after taking into account any eligible credit risk mitigation, for being assigned a risk weight equal to or smaller than –

- (a) 40% on a value-weighted average exposure basis for the portfolio where the exposures are loans secured by residential mortgages or fully guaranteed residential loans;
- (b) 50% on an individual exposure basis where the exposure is a loan secured by a commercial mortgage;
- (c) 75% on an individual exposure basis where the exposure is a retail exposure; or
- (d) 100% on an individual exposure basis for any other exposure.

Granularity of the Underlying Pool

4.2 At the portfolio cut-off date, the Reporting Bank shall ensure that the aggregated value of all exposures to a single obligor shall not exceed 1%³⁸⁷ of the aggregated outstanding exposure value of all exposures in the portfolio.

³⁸⁷ In jurisdictions with structurally concentrated corporate loan markets available for securitisation subject to ex-ante supervisory approval and only for corporate exposures, the applicable maximum concentration threshold could be increased to 2% if the originator retains subordinated tranche(s) that form loss absorbing credit enhancement, as defined in paragraph 7.6.33(a), and which cover at least the first 10% of losses. These tranche(s) retained by the originator shall not be eligible for the STC capital treatment.

ILLUSTRATION ON THE CALCULATION OF THE EFFECTS OF CRM UNDER THE SF**Section 1: Illustrative Example Involving Collateral—Proportional Cover**

1.1 Assume a Reporting Bank which is an originator purchases a \$100 securitisation exposure with a credit enhancement level in excess of K_{IRB} for which an external or inferred rating is not available. Additionally, assume that the SF capital requirement on the securitisation exposure is \$1.60 (when multiplied by 12.5 results in risk weighted assets of \$20). Further assume that the Reporting Bank receives \$80 of collateral in the form of cash that is denominated in the same currency as the securitisation exposure.

$$\begin{aligned}
 \text{(a)} \quad & \text{In accordance with the EAD* formula in paragraph 1.1 of Annex 7J of this Part:} \\
 & \text{EAD*} = \max \{0, [EAD \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\} \\
 & = \max \{0, [100 \times (1 + 0) - 80 \times (1 - 0 - 0)]\} \\
 & = \$20
 \end{aligned}$$

$$\begin{aligned}
 \text{(b)} \quad & k = (EAD^* / EAD) \times \text{SF capital requirement} \\
 & = \$20 / \$100 \times \$1.60 \\
 & = \$0.32
 \end{aligned}$$

$$\begin{aligned}
 \text{(c)} \quad & \text{Credit RWE} = 12.5 \times k \\
 & = 12.5 \times \$0.32 \\
 & = \$4
 \end{aligned}$$

Section 2: Illustrative Example Involving a Guarantee—proportional cover

2.1 All of the assumptions provided in the illustrative example in Section 1 apply, except that in place of the collateral, assume that the Reporting Bank receives an eligible, unsecured guarantee of \$80, that is denominated in the same currency as the securitisation exposure, from another bank that has a risk weight of 10% under the IRBA.

$$\begin{aligned}
 \text{(a)} \quad & \text{Credit RWE (Protected portion)} = \$80 \times 10\% \\
 & = \$8
 \end{aligned}$$

$$\begin{aligned}
 \text{(b)} \quad & k \text{ (Unprotected portion)} = \$20 / \$100 \times \$1.60 \\
 & = \$0.32
 \end{aligned}$$

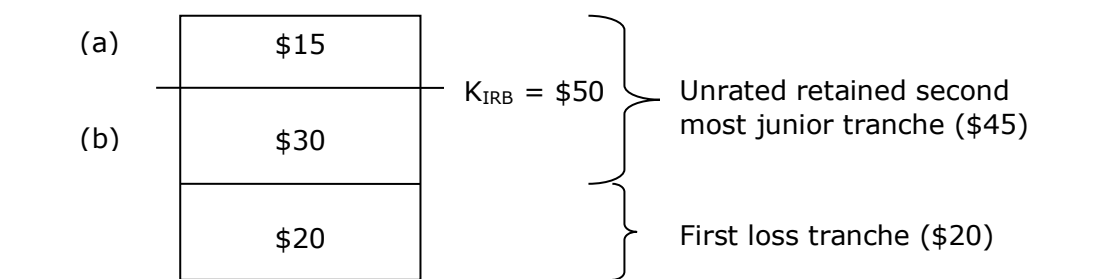
$$\begin{aligned}
 \text{(c)} \quad & \text{Credit RWE (Unprotected portion)} = 12.5 \times \$0.32 \\
 & = \$4
 \end{aligned}$$

$$\begin{aligned}
 \text{(d)} \quad & \text{Total Credit RWE} = \$8 + \$4 \\
 & = \$12
 \end{aligned}$$

Section 3: Illustrative Example—credit risk mitigants covering the most senior part

3.1—Assume a Reporting Bank which is an originator securitises a pool of loans of \$1000. The K_{IRB} of this underlying pool is 5%. There is a first loss position of \$20. The Reporting Bank retains only the second most junior tranche (i.e. an unrated tranche of \$45).

Diagram 7AH-1



Without collateral or guarantees

3.2—The capital requirement for the unrated retained tranche that is straddling the K_{IRB} line is the sum of the capital requirements for sub-tranches (a) and (b) in Diagram 7AH-1 above:

Either (a) and (b)

(a)—Assuming that the SF risk weight for sub-tranche (a) is 820%, then—

$$\begin{aligned} \text{Credit RWE} &= \$15 \times 820\% \\ &= \$123 \end{aligned}$$

(b)—Sub-tranche (b) lies below K_{IRB} and shall be applied a risk weight of 1250% (\$30)

Or (c)

(c)—Apply a risk weight of 1250% to both sub-tranches (a) and (b) since it straddles K_{IRB} (\$45)

With collateral

3.3— Assume that the Reporting Bank receives \$25 of collateral in the form of cash that is denominated in the same currency as the securitisation exposure. The Reporting Bank must assume that the collateral covers the most senior sub-tranche (a) first and can be applied to the more junior sub-tranche (b) only if there is collateral left.

Either (a) and (b)

(a)— For sub-tranche (a), in accordance with the EAD* formula in paragraph 1.1 of Annex 7J of this Part:

$$\begin{aligned} \text{EAD}^* &= \max \{0, [15 \times (1 + 0) - 15 \times (1 - 0 - 0)]\} \\ &= \$0 \end{aligned}$$

$$K = \$0; \text{Credit RWE} = \$0$$

(b)— For sub-tranche (b), $\text{EAD}^* = \max \{0, [30 \times (1 + 0) - 10 \times (1 - 0 - 0)]\}$

$$= \$20$$

Amount to which a 1250% risk weight is applied—

$$= (\text{EAD}^* / \text{EAD}) \times \text{SF capital requirement}$$

$$= (\$20 / \$30) \times \$30$$

$$= \$20$$

Or (c)

(c)— For sub-tranches (a) and (b), in accordance with the EAD* formula in paragraph 1.1 of Annex 7J of this Part:

$$\begin{aligned} \text{EAD}^* &= \max \{0, [45 \times (1 + 0) - 25 \times (1 - 0 - 0)]\} \\ &= \$20 \end{aligned}$$

Amount to which a 1250% risk weight is applied—

$$= (\text{EAD}^* / \text{EAD}) \times \text{SF capital requirement}$$

$$= (\$20 / \$30) \times \$30$$

$$= \$20$$

With a guarantee

3.4— Assume now that instead of collateral, the Reporting Bank receives an eligible, unsecured guarantee, that is denominated in the same currency as the securitisation exposures, in the amount of \$25 from another bank that has a risk weight of 20% under the IRBA.

Either (a) to (d)

$$\begin{aligned} \text{(a)— For sub-tranche (a), Credit RWE} &= \$15 \times 20\% \\ &= \$3 \end{aligned}$$

$$\text{(b)— For sub-tranche (b), Credit RWE (Protected portion)} = \$10 \times 20\%$$

$$\text{_____} = \$2$$

~~Amount to which a 1250% risk weight is applied (Unprotected portion)~~

$$\text{_____} = \$30 - \$10$$

$$\text{_____} = \$20$$

~~(c) Total Credit RWE = \$3 (Protected portion, above K_{IRB}) + \$2 (protected portion, below K_{IRB})~~

$$\text{_____} = \$5$$

~~(d) Total amount to which a 1250% risk weight is applied = \$20 (Unprotected portion, below K_{IRB})~~

Or (e) and (f)

~~(e) For sub-tranches (a) and (b), Credit RWE (Protected portion)~~

$$\text{_____} = \$25 \times 20\%$$

$$\text{_____} = \$5$$

~~(f) Amount to which a 1250% risk weight is applied (Unprotected portion)~~

$$\text{_____} = \$45 - \$25$$

$$\text{_____} = \$20$$

Amendments to Part VIII

PART VIII: MARKET RISK

Amendments to Paragraph 8.1.21

Sub-division 5: Treatment of Structural Foreign Exchange Positions

8.1.21 A Reporting Bank which has deliberately taken a position in order to partially or totally hedge against the adverse effect of the exchange rate on its capital adequacy ratios, in respect of an asset or any other item, may exclude such a position from the calculation of its net open foreign exchange positions if –

- (a) the position is of a non-dealing nature;
- (b) the position does no more than protect the capital adequacy ratios of the Reporting Bank; and
- (c) any exclusion of the position is applied consistently, with the treatment of the hedge remaining the same for the life of the asset or other item.

The exclusion of such a position from the calculation of the Reporting Bank's net open foreign exchange positions is subject to such further directions as the Authority may issue.

Amendments to Paragraph 8.2.13(a)

Division 2: SA(MR)

Sub-division 1: Interest Rate Risk

8.2.13 The specific risk capital requirement is intended to protect against an adverse movement in the price of an individual instrument owing to factors related to the individual issuer. A Reporting Bank shall calculate the specific risk capital requirement for each net position in an interest rate-related instrument⁵¹⁶ or a credit derivative (including the net delta-weighted position of options on that interest rate-related instrument or credit derivative where the Reporting Bank is using the delta-plus method or the scenario approach to calculate its market risk capital requirement for options) by^{516A} –

- (a) in the case of a securitisation exposure, multiplying the market value of each net position (ignoring the sign) by the relevant specific risk charge in Table 8C-1A of Annex 8C of this Part for positions covered under the

⁵¹⁶ This includes both actual and notional positions (e.g. futures contracts where the underlying is a debt security or an index representing a basket of debt securities). However, notional positions in zero-specific-risk securities do not attract specific risk (e.g. interest rate and currency swaps, FRAs, forward foreign exchange contracts, interest rate futures and futures on an interest rate index).

^{516A} A Reporting Bank may limit the capital charge for an individual position in a credit derivative or securitisation instrument to the maximum possible loss. For a short risk position, this limit could be calculated as a change in value due to the underlying names immediately becoming default risk-free. For a long risk position, the maximum possible loss could be calculated as the change in value in the event that all the underlying names were to default with zero recoveries. The maximum possible loss shall be calculated for each individual position.

~~SA(SE), or Table 8C-1B and Table 8C-1C of Annex 8C of this Part for positions covered under the IRBA(SE). The specific risk charge is computed as the risk weight that would apply to the securitisation exposure if the Reporting Bank were to hold it in the banking book, applying the approach as determined by paragraph 7.1.8(b)(iii), calculated in accordance with paragraphs 7.6.12 to 7.6.17, divided by 12.5, and converting the resultant amount into the base currency of the Reporting Bank at prevailing foreign exchange spot rates^{516B,516C}.~~

[MAS Notice 637 (Amendment No. 2) 2014]

- (b) in the case of a credit derivative and its hedged position for which the Reporting Bank has applied an offset pursuant to paragraph 8.2.11, multiplying the market value of the resulting net position (ignoring the sign) by the relevant specific risk charge in Table 8C-1 of Annex 8C of this Part, and converting this amount into the base currency of the Reporting Bank at prevailing foreign exchange spot rates;
 - (c) in the case of a CTP, using the larger of:
 - (i) the aggregate of each of the net long positions from the net long correlation trading exposures multiplied by the relevant specific risk charge in the relevant table of Annex 8C of this Part, and converting this amount into the base currency of the Reporting Bank at prevailing foreign exchange spot rates; and
 - (ii) the aggregate of each of the net short positions from the net short correlation trading exposures multiplied by the relevant specific risk charge in the relevant table of Annex 8C of this Part, and converting this amount into the base currency of the Reporting Bank at prevailing foreign exchange spot rates;
- and
- (d) in all other cases, multiplying the market value of each net position (ignoring the sign) by the relevant specific risk charge in Table 8C-1 of Annex 8C of this Part, and converting this amount into the base currency of the Reporting Bank at prevailing foreign exchange spot rates.

Amendments to Annex 8C

Annex 8C

^{516B} In general, the specific risk capital requirement for securitisation exposures which are held in the trading book is to be calculated according to the method used for such positions in the banking book, unless specified otherwise in this Part. ~~The treatment described in paragraph 7.6.18(b) of Part VII for certain securitisation exposures and the requirements set out in paragraph 7.6.9A of Part VII are also applicable to such exposures held in the trading book. A Reporting Bank shall apply a 100% risk charge to any securitisation exposure where the requirements in paragraphs 7.6.9A (a) to (c) are not met. A Reporting Bank's capital requirement for such exposures held in the trading book can be no less than the amount required under the banking book treatment.~~

^{516C} A securitisation exposure that is subject to a 100% specific risk charge may be excluded for the purpose of calculating the general market risk capital requirement whether the Reporting Bank applies SA(MR) or IMA for the calculation of the general market risk capital requirement.

APPLICABLE RISK CHARGES OR MATCHING FACTORS FOR CALCULATION OF SPECIFIC RISK AND GENERAL MARKET RISK CAPITAL REQUIREMENTS UNDER THE SA(MR)

Table 8C-1 – Specific Risk Capital Requirement - Specific Risk Charges for ~~Non-Positions other than~~ Securitisation ~~Positions not covered under SA(SE) or IRBA(SE) Exposures~~

Category	Credit Quality Grade as set out in Table 7R-1 of Annex 7R of Part VII	Residual term to final maturity	Specific risk charge
Government ⁵⁵²	1	N.A.	0.00%
	2 or 3	6 months or less	0.25%
		more than 6 and up to and including 24 months	1.00%
		more than 24 months	1.60%
	4 or 5	N.A.	8.00%
	6	N.A.	12.00%
	Unrated	N.A.	8.00%
Qualifying ⁵⁵³		6 months or less	0.25%

⁵⁵² The “government” category includes –
 (a) all forms of government-issued securities, including bonds, treasury bills and other short-term instruments; and
 (b) securities issued by PSEs which qualify for a 0% risk weight under the SA(CR).
 An exposure to any security issued by –
 (i) the Government or the Authority; or
 (ii) other central governments with a credit quality grade of “3” or better as set out in Table 7R-1 ~~of Annex 7R of Part VII,~~
 which is denominated in the domestic currency and funded by the Reporting Bank in the same currency shall be assigned a 0% specific risk charge.
 The Authority may, at its discretion, assign a higher risk charge other than the above to securities issued by certain governments, especially in cases where the securities are denominated in a currency other than that of the issuing government.

⁵⁵³ The “qualifying” category includes –
 (a) any security that is issued by an MDB;
 (b) any security issued by a PSE which has a credit quality grade of “3” or better as set out in Table 7R-1 ~~of Annex 7R of Part VII~~ or any unrated security issued by a PSE which belongs to a country with a credit quality grade of “1” as set out in Table 7R-1 ~~of Annex 7R of Part VII~~;
 (c) any security which has a credit quality grade of “3” or better as set out in Table 7R-1 ~~of Annex 7R of Part VII~~, from external credit assessments by at least two recognised ECAs; and
 (d) subject to supervisory monitoring, any security which has a credit quality grade of “3” or better as set out in Table 7R-1 ~~of Annex 7R of Part VII~~.
 Where a security has more than one external credit assessment and these map into different credit quality grades, paragraph 7.3.4 shall apply. A Reporting Bank adopting the IRBA may also include an unrated security in this category if the security is internally rated and associated with a PD equivalent to a credit quality grade of “3” or better as set out in Table 7R-1 ~~of Annex 7R of Part VII~~ and the issuer has securities listed on [a securities exchange in Singapore or](#) a recognised group A exchange.

Category	Credit Quality Grade as set out in Table 7R-1 of Annex 7R of Part VII	Residual term to final maturity	Specific risk charge
		more than 6 and up to and including 24 months	1.00%
		more than 24 months	1.60%
Others ⁵⁵⁴	4	N.A.	8.00%
	5 or 6	N.A.	12.00%
	Unrated	N.A.	8.00%

⁵⁵⁴ For securities which have a high yield to redemption relative to government debt securities issued in the same country, the Authority will have the discretion –
(a) to apply a higher specific risk charge to such instruments; and/or
(b) to disallow offsetting for the purpose of defining the extent of general market risk between such instruments and any other debt instruments.

~~Table 8C-1A—Specific Risk Capital Requirement—Specific Risk Charges for Positions covered under the SA(SE)~~

Credit Quality Grade^{554A}		1 to 2	3 to 5	6 to 8	9 to 11	12 or unrated
Credit Quality Grade^{554B}		I	II	III		IV or unrated
Specific Risk Charge	Securitisation Exposures	1.60 %	4.00 %	8.00 %	28.00 %	100.00 %^{554C}
	Resecuritisation Exposures	3.20 %	8.00 %	18.00 %	52.00 %	100.00 %^{554C}

^{554A} ~~Refer to Table 7R-3 of Annex 7R of Part VII. A Reporting Bank may use the external credit assessments of a recognised ECAI only if paragraphs 7.6.17 and 7.6.18 of Part VII are met.~~

^{554B} ~~Refer to Table 7R-4 of Annex 7R of Part VII. A Reporting Bank may use the external credit assessments of a recognised ECAI only if paragraphs 7.6.17 and 7.6.18 of Part VII are met.~~

^{554C} ~~For unrated positions, a Reporting Bank shall apply a 100% specific risk charge to the securitisation or resecuritisation exposures, with the exception of the circumstances described in paragraphs 7.6.21 to 7.6.26 of Part VII.~~

~~Table 8C-1B—Specific Risk Capital Requirement—Specific Risk Charges for Positions covered under the IRBA(SE) with a Long-Term Rating or an Inferred Rating from a Long-Term Assessment~~

Credit Quality Grade^{554E} / Inferred rating	Securitisation Exposures			Resecuritisation Exposures	
	N^{554D} ≥ 6		N < 6	Specific risk charge for senior resecuritisation exposures	Specific risk charge for non-senior resecuritisation exposures
	Specific risk charge for senior^{554F} positions and exposures eligible for IAM	Specific risk charge for other exposures	Specific risk charge		
1	0.56%	0.96%	1.60%	1.60%	2.40%
2	0.64%	1.20%	2.00%	2.00%	3.20%
3	0.80%	1.44%	2.80%	2.80%	4.00%
4	0.96%	1.60%		3.20%	5.20%
5	1.60%	2.80%		4.80%	8.00%
6	2.80%	4.00%		8.00%	12.00%
7	4.80%	6.00%		12.00%	18.00%
8	8.00%			16.00%	28.00%
9	20.00%			24.00%	40.00%
10	34.00%			40.00%	52.00%
11	52.00%			60.00%	68.00%
12	100.00%				
Unrated	Refer to Notes to Tables 8C-1B and 8C-1C below				

^{554D} A Reporting Bank shall calculate the effective number of underlying exposures (N) for each securitisation exposure in accordance with paragraphs 1.16 to 1.18 of Annex 7AG of Part VII.

^{554E} Refer to Table 7R-3 of Annex 7R of Part VII. A Reporting Bank may use the external credit assessments of a recognised ECAI only if paragraphs 7.6.17 and 7.6.18 of Part VII are met.

^{554F} A Reporting Bank may treat a securitisation exposure as a senior tranche if it is effectively backed or secured by a first claim on the entire amount of the underlying exposures of the securitisation. A Reporting Bank need not consider interest rate or currency swaps when determining whether a securitisation exposure is the most senior in a securitisation for the purpose of applying the RBM.

Table 8C-1C—Specific Risk Capital Requirements—Specific Risk Charges for Positions covered under the IRBA(SE) with a Short-Term Rating or an Inferred Rating from a Short-Term Assessment

Credit Quality Grade ^{554G} / Inferred rating	Securitisation Exposures			Resecuritisation Exposures	
	N ^{554D} ≥ 6		N < 6	Specific risk charge for senior resecuritisation exposures	Specific risk charge for non-senior resecuritisation exposures
	Specific risk charge for senior ^{554F} positions and exposures eligible for IAM	Specific risk charge for other exposures	Specific risk charge		
I	0.56%	0.96%	1.60%	1.60%	2.40%
II	0.96%	1.60%	2.80%	3.20%	5.20%
III	4.80%	6.00%	6.00%	12.00%	18.00%
IV	100.00%				
Unrated	Refer to Notes to Tables 8C-1B and 8C-1C below				

Notes to Tables 8C-1B and 8C-1C—Specific Risk Capital Requirements—Specific Risk Charges for Unrated Positions covered under the IRBA(SE)

1.1—The specific risk capital charges for unrated positions covered under the IRBA(SE) shall be calculated as set out below, subject to approval by the Authority:

(a)—if a Reporting Bank has approval for the IRBA for the asset classes which include the underlying exposures, the Reporting Bank may apply the SF under the securitisation framework set out in Division 6 of Part VII. When estimating PDs and LGDs for calculating K_{IRB} , the Reporting Bank shall meet the minimum requirements for the IRBA under Division 4 of Part VII;

(b)—to the extent that a Reporting Bank has approval to apply the internally developed approach referred to in paragraph 8.3.77B to the underlying exposures and the Reporting Bank derives estimates for PDs and LGDs from the internally developed approach specified in paragraphs 8.3.82 and 8.3.82A that are in line with the quantitative standards for the IRBA, the Reporting Bank may use these estimates for calculating K_{IRB} and, consequently, for applying the SF under the securitisation framework set out in Division 6 of Part VII; and

in all other cases the specific risk capital charge may be calculated as follows:

in the case where the concentration ratio^{554H} is less than 12.5, 8% of the weighted average risk weight that would be applied to the securitised exposures under the standardised approach, multiplied by the concentration ratio; or

^{554G}—Refer to Table 7R-4 of Annex 7R of Part VII. A Reporting Bank may use the external credit assessments of a recognised ECAI only if paragraphs 7.6.17 and 7.6.18 of Part VII are met.

^{554H}—The concentration ratio is equal to the sum of the nominal amounts of all the tranches divided by the sum of the nominal amounts of the tranches junior to or *pari-passu* with the tranche in which the position is held including that tranche itself.

~~in the case where the concentration ratio is 12.5 or higher, the Reporting Bank shall apply a 100% specific risk charge to the position.~~

~~1.2—The resulting specific risk capital charge pursuant to paragraph 1.1 above must not be lower than any specific risk capital charge applicable to a rated more senior tranche. If a Reporting Bank is unable to determine the specific risk capital charge as described in paragraph 1.1 above or prefers not to apply the treatment described in paragraph 1.1 above to a position, it shall apply a 100% specific risk charge to the position.~~

SPECIFIC ISSUES IN ICAAP FOR MAIN RISK CATEGORIES AND TOPICS***Amendments to Paragraph 3.22(h) and 3.23***

3.22 Securitisation provides a means for transforming relatively illiquid financial assets into liquid, tradable capital market instruments. A Reporting Bank shall implement an effective framework to manage risks from securitisation which includes the following elements:

- (a) a Reporting Bank shall assign clearly responsibility for the management and monitoring of securitisations. A Reporting Bank shall ensure that its Board and senior management are aware of and understands the effect of securitisation on its risk profile as well as the legal, accounting, risk-based capital and potential reputational impact of this activity. A Reporting Bank shall ensure that senior management is responsible for the participation of the Reporting Bank in securitisations and provides direction on the strategy of the Reporting Bank for securitisation as well as its development of policies and procedures for managing, monitoring and controlling risks arising from securitisation activities;
- (b) a Reporting Bank shall understand the credit quality and risk characteristics of the underlying exposures and have securitisation policies and procedures in place to ensure that prudent standards of credit assessment and approval relevant to its role in a securitisation are adhered to. A Reporting Bank shall conduct analyses of the underlying risks when investing in the structured products and shall not solely rely on the external credit ratings assigned to securitisation exposures by credit rating agencies. A Reporting Bank shall conduct credit analysis of a securitisation exposure at acquisition and on an ongoing basis⁷⁰⁸. A Reporting Bank providing credit enhancement shall assess the risk thereof on an arm's length basis in accordance with its normal credit assessment and approval processes;
- (c) a Reporting Bank with securitisation exposures shall take into account the credit risk arising from the underlying exposures in determining its overall exposures to any particular obligor, industry or geographic area for the purpose of managing concentration risks⁷⁰⁹;
- (d) a Reporting Bank undertaking a role in a securitisation shall satisfy itself that it is not subject to reputational risk, and where appropriate, disclose its obligations in order to mitigate that risk;

⁷⁰⁸ A Reporting Bank should have in place the necessary quantitative tools, valuation models and stress tests of sufficient sophistication to reliably assess all relevant risks, including any risk concentrations and correlation between underlying exposures. In addition, a Reporting Bank shall review the maturity of the exposures underlying structured credit transactions relative to the issued liabilities in order to assess potential maturity mismatches, in its assessment of economic capital.

⁷⁰⁹ A Reporting Bank shall track credit risk in securitisation exposures at the transaction level, and across securitisation exposures within each business line and across business lines, and produce reliable measures of aggregate risk. A Reporting Bank shall also track meaningful concentrations in securitisation exposures, such as name, product and sector concentrations, and feed this information to firm-side risk aggregation systems that track, for example, credit exposure to a particular obligor.

- (e) a Reporting Bank shall have in place appropriate internal systems and controls to identify, monitor and manage the risks that arise from its involvement in securitisations. These risks include credit, market, liquidity and reputational risks of each exposure, potential delinquencies and losses on the underlying securitised exposures, exposures from credit lines or liquidity facilities to special purpose entities, and exposures from guarantees provided by monolines and other third parties. A Reporting Bank shall ensure that its securitisation exposures are monitored on an ongoing basis and that significant concerns are reported to its Board and senior management on a timely basis⁷¹⁰;
- (f) a Reporting Bank shall assess the adequacy of the regulatory capital requirements stated in Part VII and all relevant and prevailing legislation and Notices as may be in force from time to time, for its securitisation exposures, whether retained or repurchased, taking into account the economic substance of those securitisation exposures. A Reporting Bank shall take account of the appropriateness of credit protection recognised against first loss credit enhancements or purchased on first loss retained securitisation positions in determining its economic capital⁷¹¹;
- (g) a Reporting Bank shall identify the various types of triggers⁷¹², credit events and other legal provisions that may affect the performance of its on- and off-balance sheet exposures. A Reporting Bank shall integrate these triggers and provisions into its funding, liquidity, credit and balance sheet management and consider the impact on its liquidity and capital positions. A Reporting Bank shall consider the effects that changes in portfolio management or business strategies may have on the levels of excess spread and on the likelihood of an early amortisation event. For example, marketing strategies or underwriting changes that result in lower finance charges or higher charge-offs, might also lower excess spread levels and increase the likelihood of an early amortisation event;
- (h) a Reporting Bank shall have in place reasonable methods for allocating economic capital against the economic substance of the credit risk arising

⁷¹⁰ Securitisation exposures shall be included in the Reporting Bank's management information system to help ensure that senior management understands the implications of such exposures for liquidity, earnings, risk concentration and capital. A Reporting Bank shall have the necessary processes in place to capture, in a timely manner, updated information on securitisation transactions. This shall include market data, if available, and updated performance data from the securitisation trustee and servicer.

⁷¹¹ On such positions, expected loss is less likely to be a significant element of the risk and is likely to be retained by the protection buyer through the pricing. For example, the cost of protection may be equal to the recorded value of the first loss securitisation position, or the terms and conditions of the contract ensure that the premiums paid throughout the life of the contract equal the amount of the realised loss. The Reporting Bank shall consider the material costs of credit protection purchased that has not yet been recognised in earnings as a retained position of the Reporting Bank. If the Authority is not satisfied that the Reporting Bank's approach to recognising credit protection is adequate, action taken by the Authority may include, but is not limited to, increasing the capital requirement against a particular transaction or class of transactions.

⁷¹² For example, the following factors affecting excess spread levels should be considered:

- (a) Interest payments made by borrowers on the underlying receivable balances;
- (b) Other fees and charges to be paid by the underlying obligors (e.g. late-payment fees, cash advance fees, over-limit fees);
- (c) Gross write-offs;
- (d) Principal payments;
- (e) Recoveries on loans written off;
- (f) Interchange fees;
- (g) Interest paid on securitisation exposures held by investors;
- (h) Macroeconomic factors such as bankruptcy rates, interest rate movements, unemployment rates; etc.

from revolving securitisations and use techniques (e.g. static pool cash collections analyses and stress tests) to understand pool performance. A Reporting Bank shall have in place capital and liquidity contingency plans to evaluate the probability of an early amortisation occurring and to address the implications of scheduled and early amortisations of revolving securitisation as well as adverse and unanticipated changes and market disruptions (e.g. a market-wide disruption can prevent a Reporting Bank from securitising warehoused or pipeline exposures)⁷¹³. The contingency plans shall also address ~~the possibility that the Reporting Bank may face higher levels of required capital under the early amortisation Pillar 1 capital requirement and~~ how the Reporting Bank would address valuation challenges for potentially illiquid positions held for sale or for trading;

- (i) a Reporting Bank shall conduct a proper review, taking into consideration the rationale for the decision of the Reporting Bank to exercise a call and the impact of the call on the CET1 CAR, Tier 1 CAR and Total CAR of the Reporting Bank, prior to exercising a call; and
- (j) a Reporting Bank shall subject the risk management process of the Reporting Bank for securitisation to regular independent review.

3.23 Where the Authority is not satisfied that the credit risk transfer arising from a securitisation is sufficient or existent, or that the risks arising from the securitisation are adequately addressed in the minimum capital requirement, action taken by the Authority may include requiring a Reporting Bank to maintain capital additional to that required under Pillar 1, ~~or directing a bank to obtain a dedicated liquidity facility~~. Where a Reporting Bank retains or repurchases significant securitisation exposures based on the proportion of risk held by the Reporting Bank, the intent of a securitisation to transfer credit risk is undermined. A Reporting Bank shall transfer a significant portion of the credit risk and of the nominal value of the pool to at least one independent third party at inception and on an ongoing basis. Where the Reporting Bank repurchases risk for market making purposes, these positions should not be a whole tranche and should be resold within an appropriate period.

Insertion of Footnote 717 in Paragraph 4.1

4.1 A Reporting Bank shall use methodologies that enable it to assess and actively manage all material market risks, wherever they arise - at position, desk, business line and bank group-wide level. For further guidance, a Reporting Bank should refer to relevant publications on the management of market risk issued by the BCBS and the Authority⁷¹⁷.

⁷¹³ The sophistication of the Reporting Bank's system in monitoring the probability and risks of an early amortisation event shall be commensurate with the size and complexity of its securitisation activities that involve early amortisation provisions.

⁷¹⁷ [For example, the "Supervisory guidance for managing risks associated with the settlement of foreign exchange transactions" issued by the BCBS in February 2013.](#)

Amendments to Part XI

PART XI: PUBLIC DISCLOSURE REQUIREMENTS

Division 3: Specific Disclosure Requirements

Amendments to Sub-division 6 (Securitisation)

Sub-division 6: Securitisation

11.3.10 A Reporting Bank shall disclose, in Tables 11-34 and 11-35, only securitisation exposures that meet the requirements for the recognition of risk transference as set out in Sub-division 2 of Division 6 of Part VII. A Reporting Bank shall disclose all securitisation exposures, including those that do not meet the requirements for the recognition of risk transference, in Tables 11-32 and 11-33. As a result, Tables 11-32 and 11-33 may include exposures that are subject to credit risk and market risk capital requirements and that are also included in other parts of the standalone Pillar 3 report. The purpose is to provide a comprehensive view of a Reporting Bank's securitisation activities. There is no double-counting of capital requirements as Tables 11-34 and 11-35 are limited to securitisation exposures subject to capital requirements set out in Division 6 of Part VII.

11.3.11 A Reporting Bank shall disclose all items set out in Tables 11-31 to 11-35.

Table 11-31: Qualitative Disclosures related to Securitisation Exposures

Purpose	To provide qualitative information on a Reporting Bank's strategy and risk management with respect to its securitisation activities.
Scope of application	This table is mandatory for all Reporting Banks with securitisation exposures.
Content	Qualitative information
Frequency	Annually
Format	Flexible

A Reporting Bank shall provide a description of -	
(a)	its risk management objectives and policies for securitisation activities and main features of these activities based on the rows (c) to (g) of this table. If the Reporting Bank holds securitisation exposures in both the banking book and the trading book, the Reporting Bank shall describe each of the points set out in rows (c) to (g) of this table by distinguishing the activities in each of the books.
(b)	The Reporting Bank's objectives in relation to its securitisation and re-securitisation activity, including the extent to which these activities transfer credit risk of the underlying securitised exposures away from the Reporting Bank to other entities, including the type of risks assumed and retained.
(c)	A list of - <ul style="list-style-type: none"> (i) SPEs where it acts as sponsor⁸⁰¹ (but not as an originator such as an ABCP conduit), indicating whether the Reporting Bank consolidates the SPEs into its scope of regulatory consolidation; (ii) affiliates that the Reporting Bank manages or advises; and that invest either in the securitisation exposures that the Reporting Bank has securitised or in SPEs that the Reporting Bank sponsors; and (iii) entities to which the Reporting Bank provides implicit support and the associated capital impact for each of them.
(d)	Summary of a Reporting Bank's accounting policies for securitisation activities ⁸⁰² .
(e)	The names of ECAIs used for securitisations and the types of securitisation exposure for which each agency is used, if applicable.
(f)	The IAAM process, including - <ul style="list-style-type: none"> (i) structure of the internal assessment process and the relation between internal assessment and external ratings, including information on ECAIs as referenced in row (e) of this table; (ii) control mechanisms for the internal assessment process including discussion of independence, accountability, and internal assessment process review; (iii) the exposure type to which the internal assessment process is applied; and

⁸⁰¹ A Reporting Bank would generally be considered "a sponsor" if it, in fact or in substance, manages or advises the programme, places securities into the market, or provides liquidity and/or credit enhancements. The programme may include, for example, the ABCP conduit programme and structured investment vehicles.

⁸⁰² Where meaningful or relevant, the Reporting Bank should differentiate between accounting policies applied for securitisation exposures and resecuritisation exposures.

	(iv) stress factors used for determining credit enhancement levels, by exposure type ⁸⁰³ .
(g)	The use of internal assessment other than for IAM <u>IAA</u> capital purposes.

⁸⁰³ For example, credit cards, home equity, auto, and securitisation exposures detailed by underlying exposure type and security type (e.g. residential mortgage-backed securities, commercial mortgage-backed securities, asset-backed securities, collateralised debt obligations) etc.

Table 11-32: Securitisation Exposures in the Banking Book

Purpose	To present a Reporting Bank's securitisation exposures in its banking book.
Scope of application	This table is mandatory for all Reporting Banks with securitisation exposures in the banking book.
Content	Carrying amounts. In this table, securitisation exposures include securitisation exposures even where criteria for recognition of risk transference are not met.
Frequency	Semi-annually
Format	Flexible. A Reporting Bank may modify the breakdown and order of proposed rows if another breakdown (e.g. whether or not criteria for recognition of risk transference are met) would be more appropriate to reflect their activities. Where the Reporting Bank acts both as originator and sponsor, the Reporting Bank can merge the two columns of 'a Reporting Bank acts as originator' and 'a Reporting Bank acts as sponsor' and use 'a Reporting Bank acts as originator/sponsor' column.
Accompanying narrative	A Reporting Bank shall explain any significant changes over the semi-annual reporting period and the key drivers of such changes.

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		A Reporting Bank act as originator			A Reporting Bank acts as sponsor			A Reporting Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
1	Total retail									
2	of which: residential mortgage									
3	of which: credit card									
4	of which: other retail exposures									
5	of which: resecuritisation									
6	Total wholesale									
7	of which: loans to corporates									

8	of which: commercial mortgage									
9	of which: lease and receivables									
10	of which: other wholesale									
11	of which: resecuritisation									

Table 11-32A: Explanatory Notes to Securitisation Exposures in the Banking Book

Definitions	
(a)	When 'a <i>Reporting Bank acts as originator</i> ', the securitisation exposures are retained positions, even where not eligible for the securitisation framework due to the absence of significant and effective risk transfer.
(b)	When 'a <i>Reporting Bank acts as sponsor</i> ', the securitisation exposures include exposures to commercial paper conduits to which the Reporting Bank provides programme-wide enhancements, liquidity and other facilities. Where the Reporting Bank acts both as originator and sponsor, it must avoid double-counting.
(c)	When 'a <i>Reporting Bank acts as investor</i> ', the securitisation exposures are investment positions purchased in third-party deals.
(d)	<i>Synthetic transactions</i> : If the Reporting Bank has purchased protection, it shall report the unsecured net exposure amounts to which it is exposed under columns 'a Reporting Bank acts as originator' or 'a Reporting Bank acts as sponsor'. If the Reporting Bank has sold protection, the exposure amount of the credit protection shall be reported in the 'Reporting Bank acts as investor' column.
(e)	<i>Resecuritisation</i> : All securitisation exposures related to resecuritisation shall be completed in rows 5 and 11 of this table, and not in the other rows of this table which contain only securitisation exposures other than resecuritisation.

Table 11-33: Securitisation Exposures in the Trading Book

Purpose	To present a Reporting Bank's securitisation exposures in its trading book.
Scope of application	This table is mandatory for all Reporting Banks with securitisation exposures in the trading book.
Content	Carrying amounts
Frequency	Semi-annually
Format	Flexible. A Reporting Bank may modify the breakdown and order of proposed rows if another breakdown (e.g. whether or not criteria for recognition of risk transference are met) would be more appropriate to reflect their activities. Where the Reporting Bank acts both as originator and sponsor, the Reporting Bank can merge the two columns of 'a Reporting Bank acts as originator' and 'a Reporting Bank acts as sponsor' and use 'a Reporting Bank acts as originator/sponsor' column.
Accompanying narrative	A Reporting Bank shall explain any significant changes over the semi-annual reporting period and the key drivers of such changes.

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		A Reporting Bank act as originator			A Reporting Bank acts as sponsor			A Reporting Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
1	Total retail									
2	of which: residential mortgage									
3	of which: credit card									
4	of which: other retail exposures									
5	of which: resecuritisation									
6	Total wholesale									
7	of which: loans to corporates									
8	of which: commercial mortgage									

9	of which: lease and receivables									
10	of which: other wholesale									
11	of which: resecuritisation									

Table 11-33A: Explanatory Notes to Securitisation Exposures in the Trading Book

Definitions	
(a)	When 'a <i>Reporting Bank acts as originator</i> ', the securitisation exposures are retained positions, even where not eligible for the securitisation framework due to the absence of significant and effective risk transfer.
(b)	When 'a <i>Reporting Bank acts as sponsor</i> ', the securitisation exposures include exposures to commercial paper conduits to which the Reporting Bank provides programme-wide enhancements, liquidity and other facilities. Where the Reporting Bank acts both as originator and sponsor, it shall avoid double-counting.
(c)	When 'a <i>Reporting Bank acts as investor</i> ', the securitisation exposures are investment positions purchased in third-party deals.
(d)	<i>Synthetic transactions</i> : If a Reporting Bank has purchased protection, it shall report the unsecured net exposure amounts to which it is exposed under columns 'a Reporting Bank acts as originator' or 'a Reporting Bank acts as sponsor'. If the Reporting Bank has sold protection, the exposure amount of the credit protection shall be reported in 'a Reporting Bank acts as investor' column.
(e)	<i>Resecuritisation</i> : All securitisation exposures related to resecuritisation shall be completed in rows 5 and 11 of this table, and not in the other rows of this table which contain only securitisation exposures other than resecuritisation.

Table 11-34: Securitisation Exposures in the Banking Book and associated Regulatory Capital Requirements – A Reporting Bank acting as Originator or as Sponsor

Purpose	To present a Reporting Bank's securitisation exposures in the banking book when the Reporting Bank acts as originator or sponsor, and the associated capital requirements.
Scope of application	This table is mandatory for all Reporting Banks with securitisation exposures as sponsor or originator.
Content	Exposure values, RWA and capital requirements. Only securitisation exposures where the risk transference recognition criteria are met shall be disclosed here.
Frequency	Semi-annually
Format	Fixed
Accompanying narrative	A Reporting Bank shall explain any significant changes over the semi-annual reporting period and the key drivers of such changes.

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
		Exposure values (by risk weight bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap			
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	IRBA(SE) RBM and IAM SEC-IRBA	IRBA(SE) SF SEC-ERBA	SA(SE) SEC-SA	1250%	IRBA(SE) RBM and IAM SEC-IRBA	IRBA(SE) SF SEC-ERBA	SA(SE) SEC-SA	1250%	IRBA(SE) RBM and IAM SEC-IRBA	IRBA(SE) SF SEC-ERBA	SA(SE) SEC-SA	1250%
1	Total exposures																	
2	Traditional securitisation																	
3	of which: securitisation																	
4	of which: retail underlying																	
5	of which: wholesale																	
6	of which: resecuritisation																	
7	of which: senior																	
8	of which: non-senior																	
9	Synthetic securitisation																	
10	of which: securitisation																	

11	of which: retail underlying																	
12	of which: wholesale																	
13	of which resecuritisation																	
14	of which: senior																	
15	of which: non-senior																	

Table 11-34A: Explanatory Notes to Securitisation Exposures in the Banking Book and associated Regulatory Capital Requirements – A Reporting Bank acting as Originator or as Sponsor

Definitions	
(a)	Columns (e) , (i), (m) and (q) refer to securitisation exposures subject to a 1250% risk weight as the SEC-IRBA, SEC-ERBA and SEC-SA cannot be applied, and exclude securitisation exposures capitalised under the SEC-IRBA, SEC-ERBA, or SEC-SA which are subject to a 1250% risk weight. items subject to a 1250% risk weight.
(b)	<i>Capital requirement after cap</i> : This refers to the capital requirement after application of the any caps as specified in paragraphs 7.1.11 and 7.6.47A 7.1.9 to 7.1.17 .

Table 11-35: Securitisation Exposures in the Banking Book and associated Regulatory Capital Requirements – A Reporting Bank acting as Investor

Purpose	To present a Reporting Bank's securitisation exposures in the banking book when the Reporting Bank acts as investor and the associated capital requirements.
Scope of application	This table is mandatory for all Reporting Banks with securitisation exposures as investor.
Content	Exposure values, RWA and capital requirements. Only securitisation exposures where the risk transference recognition criteria are met shall be disclosed here.
Frequency	Semi-annually
Format	Fixed
Accompanying narrative	A Reporting Bank shall explain any significant changes over the semi-annual reporting period and the key drivers of such changes.

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
		Exposure values (by risk weight bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap			
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	IRBA(SE) RBM and IAM SEC-IRBA	IRBA(SE) SF SEC-ERBA	SA(SE) SEC-SA	1250%	IRBA(SE) RBM and IAM SEC-IRBA	IRBA(SE) SF SEC-ERBA	SA(SE) SEC-SA	1250%	IRBA(SE) RBM and IAM SEC-IRBA	IRBA(SE) SF SEC-ERBA	SA(SE) SEC-SA	1250%
1	Total exposures																	
2	Traditional securitisation																	
3	of which: securitisation																	
4	of which: retail underlying																	
5	of which: wholesale																	
6	of which: resecuritisation																	
7	of which: senior																	
8	of which: non-senior																	
9	Synthetic securitisation																	
10	of which: securitisation																	

11	of which: retail underlying																	
12	of which: wholesale																	
13	of which resecuritisation																	
14	of which: senior																	
15	of which: non-senior																	

Table 11-35A: Explanatory Notes to Securitisation Exposures in the Banking Book and associated Regulatory Capital Requirements – A Reporting Bank acting as Investor

Definitions	
(a)	Columns (e) , (i), (m) and (q) refer to securitisation exposures subject to a 1250% risk weight as the SEC-IRBA, SEC-ERBA and SEC-SA cannot be applied, and exclude securitisation exposures capitalised under the SEC-IRBA, SEC-ERBA, or SEC-SA which are subject to a 1250% risk weight. items subject to a 1250% risk weight.
(b)	<i>Capital requirement after cap</i> : This refers to the capital requirement after application of the any caps as specified in paragraphs 7.1.11 and 7.6.47 7.1.9 to 7.1.17 .

Amendments to Part XII

PART XII: REPORTING SCHEDULES

Amendments to Table 12-1

Division 1: Introduction

12.1.1 A Reporting Bank shall submit to the Authority, information relating to its capital adequacy calculated according to the requirements and guidelines of this Notice in the format of the reporting schedules set out in Annexes 12A to 12E and such other reporting schedules as the Authority may specify. A summary of the reporting schedules in Annexes 12A to 12E is set out in the Table 12-1 below.

Table 12-1: Summary of Reporting Schedules in Annexes 12A to 12E

Section		Annex/Schedule
1	Capital Adequacy Reporting Schedules	Annex 12A
	Statement of CET1 CAR, Tier 1 CAR and Total CAR	Schedule 1A
	Capital Treatment of Allowances	Schedule 1B
	[MAS Notice 637 (Amendment No. 2) 2012]	
	Leverage Ratio	Schedule 1C
	[MAS Notice 637 (Amendment) 2014, with effect from 31 December 2015]	
	Countercyclical Buffer	Schedule 1D
2	Credit Risk Reporting Schedules	Annex 12B
	Summary of Credit RWA	Schedule 2
2-1	SA(CR)	Schedule 2-1A
2-2	F-IRBA for Wholesale Asset Class	
	Sovereign Asset Sub-Class	Schedule 2-2A
	Bank Asset Sub-Class	Schedule 2-2B
	Corporate Asset Sub-Class	Schedule 2-2C
	Corporate Small Business Asset Sub-Class	Schedule 2-2D
	SL Asset Sub-Class : IPRE	Schedule 2-2E
	SL Asset Sub-Class : PF/OF/CF	Schedule 2-2F
	HVCRE Asset Sub-Class	Schedule 2-2G
	Exposures Subject to Double Default Framework	Schedule 2-2H
2-3	A-IRBA for Wholesale Asset Class	
	Sovereign Asset Sub-Class	Schedule 2-3A
	Bank Asset Sub-Class	Schedule 2-3B
	Corporate Asset Sub-Class	Schedule 2-3C
	Corporate Small Business Asset Sub-Class	Schedule 2-3D
	SL Asset Sub-Class : IPRE	Schedule 2-3E

Section		Annex/Schedule
	SL Asset Sub-Class : PF / OF / CF HVCRE Asset Sub-Class Exposures Subject to Double Default Framework	Schedule 2-3F Schedule 2-3G Schedule 2-3H
2-4	Supervisory Slotting Criteria	Schedule 2-4A
2-5	IRBA for Retail Asset Class Residential Mortgage Asset Sub-Class QRRE Asset Sub-Class Other Retail Exposures Asset Sub-Class (Excluding Exposures to Small Business) Other Retail Small Business Exposures Asset Sub-Class	Schedule 2-5A Schedule 2-5B Schedule 2-5C Schedule 2-5D
2-6	Equity Exposures SA(EQ) IRBA(EQ)	Schedule 2-6A Schedule 2-6B
2-7	Securitisation Exposures SA(SE) IRBA(SE) Securitisation	Schedule 2-7A Schedule 2-7B Schedule 2-7
2-8	Unsettled Transactions [MAS Notice 637 (Amendment No. 2) 2014]	Schedule 2-8A
3	Market Risk Reporting Schedules	Annex 12C
	Summary of Market RWA	Schedule 3
3-1	SA(MR) Interest Rate Risk Interest Rate Risk (General Market Risk) Equity Risk Foreign Exchange Risk Commodities Risk Options Position Risk	Schedule 3-1A Schedule 3-1B Schedule 3-1C Schedule 3-1D Schedule 3-1E Schedule 3-1F
3-2	IMA	Schedule 3-2A
4	Operational Risk Reporting Schedules	Annex 12D
	Summary of Operational RWA BIA, SA(OR), ASA, AMA Operational Loss Details	Schedule 4 Schedule 4-1A Schedule 4-2A
5	Other Reporting Schedules	Annex 12E
	Off-Balance Sheet Exposures (Excluding Derivative Transactions and Securitisation Exposures)	Schedule 5A

Section		Annex/Schedule
	OTC Derivative Transactions and Credit Derivatives	Schedule 5B
	Inflows into and Outflows from Asset Sub-classes due to Credit Protection	Schedule 5C
	Credit Valuation Adjustments	Schedule 5D
	Eligible Financial Collateral and Eligible IRBA Collateral	Schedule 5E
	Exposures to CCPs	Schedule 5F
	[MAS Notice 637 (Amendment No. 2) 2014]	

MAS NOTICE 637: CAPITAL ADEQUACY REPORTING SCHEDULES
SCHEDULE 1A

Annex 12A

STATEMENT OF CET1 CAR, TIER 1 CAR AND TOTAL CAR

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

(indicate as appropriate)Amounts subject
to pre-BaseI III
treatment

Amounts

(In S\$ million)

Part A: CET1, AT1 and Tier 2 Capital

Common Equity Tier 1 capital: instruments and reserves

1 Paid-up ordinary shares and share premium (if applicable)

2 Retained earnings

3 Accumulated other comprehensive income and other disclosed reserves

of which: 45% of revaluation surpluses and accumulated revaluation gains

4 Directly issued capital subject to phase out from CET1
(only applicable to non-joint stock companies)

5 Minority interest that meets criteria for inclusion

6 Common Equity Tier 1 capital before regulatory adjustments

Common Equity Tier 1 capital: regulatory adjustments

7 Valuation adjustment pursuant to Part VIII

8 Goodwill, net of associated deferred tax liability

9 Intangible assets, net of associated deferred tax liability

10 Deferred tax assets that rely on future profitability

11 Cash flow hedge reserve

12 Shortfall of TEP relative to EL under IRBA

13 Increase in equity resulting from securitisation transactions

13A Net exposures to credit-enhancing interest-only strips

14 Unrealised fair value gains/losses on financial liabilities and derivative liabilities
arising from changes in own credit risk

15 Defined benefit pension fund assets, net of associated deferred tax liability

16 Investments in own shares

of which: Direct investments, net of qualifying short positions

of which: Indirect investments, net of qualifying short positions

17 Reciprocal cross-holdings in ordinary shares of financial institutions

18 Investments in ordinary shares of unconsolidated financial institutions
in which Reporting Bank does not hold a major stake

Total capital holdings:

(i) Gross direct, indirect and synthetic holdings in banking/trading books
including qualifying offsetting short positions

(ii) Underwriting positions held for more than five working days

(iii) Maximum amount that could be paid out on guarantees or capital
enhancements arising from capital support provided to financial institutionsof which: ordinary share holdings of
unconsolidated financial institutions incorporated in Singapore

10% of common equity pursuant to paragraph 6.1.3(o)(i)

Total capital holdings in excess of 10% of common equity

Proportion of ordinary share holdings to total capital holdings

19 Investments in ordinary shares of unconsolidated financial institutions in which Reporting Bank holds a major stake
approved under s32 of Banking Act (incl insurance subsidiaries)
(amount above 10% threshold)

Investments in aggregate

(i) Gross direct, indirect and synthetic holdings in banking/trading books
including qualifying offsetting short positions

(ii) Underwriting positions held for more than five working days

(iii) Maximum amount that could be paid out on guarantees or capital
enhancements arising from capital support provided to financial institutions

10% of common equity pursuant to paragraph 6.1.3(p)(i)

20 Mortgage servicing rights (amount above 10% threshold)

21 Deferred tax assets arising from temporary differences
(amount above 10% threshold, net of related tax liability)

22 Amount exceeding the 15% threshold

23 of which: investments in ordinary shares of unconsolidated financial institutions in which Reporting Bank holds a major stake
approved under s32 of Banking Act (incl insurance subsidiaries)

24 of which: mortgage servicing rights

25 of which: deferred tax assets arising from temporary differences

25A 15% of CET1 Capital

26 National specific regulatory adjustments		
26A PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630		
26B Capital deficits in subsidiaries and associates that are regulated financial institutions		
26C Any other items which the Authority may specify		
27 Regulatory adjustments applied in calculation of CET1 Capital due to insufficient AT1 Capital to satisfy required deductions		
28 Total regulatory adjustments to CET1 Capital		
29 Common Equity Tier 1 capital (CET1)		
<u>Additional Tier 1 capital: instruments</u>		
30 AT1 capital instruments and share premium (if applicable)		
31 of which: classified as equity under the Accounting Standards		
32 of which: classified as liabilities under the Accounting Standards		
33 Transitional: Ineligible capital instruments (pursuant to paragraphs 6.5.3 and 6.5.4)		
34 AT1 capital instruments issued by fully-consolidated subsidiaries that meet criteria for inclusion		
35 of which: instruments issued by subsidiaries subject to phase out		
36 Additional Tier 1 capital before regulatory adjustments		
<u>Additional Tier 1 capital: regulatory adjustments</u>		
37 Investments in own AT1 capital instruments		
of which: Direct investments, net of qualifying short positions		
of which: Indirect investments, net of qualifying short positions		
38 Reciprocal cross-holdings in AT1 capital instruments of financial institutions		
39 Investments in AT1 capital instruments of unconsolidated financial institutions in which Reporting Bank does not hold a major stake		
(i) AT1 capital instrument holdings of unconsolidated financial institutions incorporated in Singapore		
(ii) Total capital holdings in excess of 10% common equity		
(iii) Proportion of AT1 capital instrument holdings to total capital holdings		
40 Investments in AT1 capital instruments of unconsolidated financial institutions in which Reporting Bank holds a major stake approved under s32 of Banking Act (incl insurance subsidiaries)		
(i) Gross direct, indirect and synthetic holdings in banking/trading books including qualifying offsetting short positions		
(ii) Underwriting positions held for more than five working days		
41 National specific regulatory adjustments		
41A Any other items which the Authority may specify		
41B Regulatory adjustments applied to AT1 Capital in respect of amounts subject to pre-Basel III treatment		
of which:		
(i) Goodwill, net of associated deferred tax liability		
(ii) Intangible assets, net of associated deferred tax liability		
(iii) Deferred tax assets that rely on future profitability		
(iv) Cash flow hedge reserve		
(v) Increase in equity resulting from securitisation transactions		
(vi) Unrealised fair value gains/losses on financial liabilities and derivative liabilities arising from changes in own credit risk		
(vii) Shortfall of TEP relative to EL under IRBA		
(viii) PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630		
(ix) Capital deficits in subsidiaries and associates that are regulated financial institutions		
(x) Investments in ordinary shares of unconsolidated financial institutions in which Reporting Bank holds a major stake approved under s32 of Banking Act (incl insurance subsidiaries)		
(xi) Investments in Tier 2 capital instruments of unconsolidated financial institutions in which Reporting Bank holds a major stake approved under s32 of Banking Act (incl insurance subsidiaries)		

42 Regulatory adjustments applied in calculation of AT1 Capital due to insufficient Tier 2 Capital to satisfy required deductions		
43 Total regulatory adjustments to Additional Tier 1 capital		
44 Additional Tier 1 capital (AT1)		
45 Tier 1 capital (T1 = CET1 + AT1)		
<u>Tier 2 capital: instruments and provisions</u>		
46 Tier 2 capital instruments and share premium (if applicable)		
47 Transitional: Ineligible capital instruments (pursuant to paragraphs 6.5.3 and 6.5.4)		
48 Tier 2 capital instruments issued by fully-consolidated subsidiaries that meet criteria for inclusion		
49 of which: instruments issued by subsidiaries subject to phase out		
50 Provisions		
51 Tier 2 capital before regulatory adjustments		
<u>Tier 2 capital: regulatory adjustments</u>		
52 Investments in own Tier 2 Instruments		
of which: Direct investments, net of qualifying short positions		
of which: Indirect investments, net of qualifying short positions		
53 Reciprocal cross-holdings in Tier 2 capital instruments of financial institutions		
54 Investments in Tier 2 capital instruments of unconsolidated financial institutions in which Reporting Bank does not hold a major stake		
(i) Tier 2 capital instrument holdings of unconsolidated financial institutions incorporated in Singapore		
(ii) Total capital holdings in excess of 10% common equity		
(iii) Proportion of Tier 2 capital instrument holdings to total capital holdings		
55 Investments in Tier 2 capital instruments of unconsolidated financial institutions in which Reporting Bank holds a major stake approved under s32 of Banking Act (incl insurance subsidiaries)		
(i) Gross direct, indirect and synthetic holdings in banking/trading books including qualifying offsetting short positions		
(ii) Underwriting positions held for more than five working days		
56 National specific regulatory adjustments		
56A Any other items which the Authority may specify		
56B Regulatory adjustments applied to Tier 2 Capital in respect of amounts subject to pre-Basel III treatment		
of which:		
(i) Shortfall of TEP relative to EL under IRBA		
(ii) PE/VC investments held beyond the relevant holding periods set out in MAS Notice 630		
(iii) Capital deficits in subsidiaries and associates that are regulated financial institutions		
(iv) Investments in ordinary shares of unconsolidated financial institutions in which Reporting Bank holds a major stake approved under s32 of Banking Act (incl insurance subsidiaries)		
(vii) Investments in AT1 capital instruments of unconsolidated financial institutions in which Reporting Bank holds a major stake approved under s32 of Banking Act (incl insurance subsidiaries)		
57 Total regulatory adjustments to Tier 2 capital		
58 Tier 2 capital (T2)		
59 Total capital (TC = T1 + T2)		
60 Total risk weighted assets after floor adjustment		
<u>Capital ratios (as a percentage of risk weighted assets)</u>		
61 Common Equity Tier 1 CAR		
62 Tier 1 CAR		
63 Total CAR		
64 Bank-specific buffer requirement		
65 of which: capital conservation buffer requirement		
66 of which: bank specific countercyclical buffer requirement		
67 of which: G-SIB buffer requirement (if applicable)		
68 Common Equity Tier 1 available to meet buffers		

National minima

69 Minimum CET1 CAR

70 Minimum Tier 1 CAR

71 Minimum Total CAR

Amounts below the thresholds for deduction (before risk weighting)

72 Investments in ordinary shares, AT1 capital and Tier 2 capital of unconsolidated financial institutions in which the bank does not hold a major stake

73 Investments in ordinary shares of unconsolidated financial institutions in which Reporting Bank holds a major stake approved under s32 of Banking Act (incl insurance subsidiaries)

74 Mortgage servicing rights (net of related tax liability)

75 Deferred tax assets arising from temporary differences (net of related tax liability)

Applicable caps on the inclusion of provisions in Tier 2

76 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)

77 Cap on inclusion of provisions in Tier 2 under standardised approach

78 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)

79 Cap for inclusion of provisions in Tier 2 under internal ratings-based approach

PE/VC investments and investments in unconsolidated major stake companies that are not financial institutions

80 Portion of Reporting Bank's individual PE/VC investments and investments in unconsolidated major stake companies that are not financial institutions and exceed 15% of Eligible Total Capital

80A of which: PE/VC investments

80B of which: Investments in unconsolidated major stake companies that are not financial institutions

80C 15% of Eligible Total Capital

81 For individual PE/VC investments and investments in unconsolidated major stake companies that are not financial institutions which do not exceed 15% of Eligible Total Capital, the portion of the aggregate of such investments that exceeds 60% of Eligible Total Capital

81A 60% of Eligible Total Capital

**Capital instruments subject to phase-out arrangements
(only applicable between 1 Jan 2013 and 1 Jan 2022)**

82 Current cap on CET1 instruments subject to phase out arrangements

83 Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)

83A Nominal amount of ineligible AT1 instruments as at 1 Jan 2013

84 Current cap on AT1 instruments subject to phase out arrangements

85 Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)

85A Nominal amount of ineligible T2 instruments as at 1 Jan 2013

86 Current cap on T2 instruments subject to phase out arrangements

87 Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)

[MAS Notice 637 (Amendment) 2017]

STATEMENT OF CET1 CAR, TIER 1 CAR AND TOTAL CAR

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

 Group

88. Capital Instruments issued by Fully-Consolidated Subsidiaries that meet Criteria for Inclusion in Regulatory Capital
(pursuant to paragraphs 6.1.4, 6.2.4, 6.2.5, 6.3.4 and 6.3.5)

(In S\$ million)

Total
(Sum across
all subsidiaries)

		Subsidiary 1 (Name)	Subsidiary 2 (Name)	
(a)	CET1 Capital of subsidiary, net of regulatory adjustments	<input type="text"/>	<input type="text"/>	
(i)	paid-up amount, reserves, retained earnings owned by Reporting Bank, gross of all regulatory adjustments	<input type="text"/>	<input type="text"/>	
(ii)	paid-up amount, reserves, retained earnings owned by third party investors gross of all regulatory adjustments	<input type="text"/>	<input type="text"/>	
(b)	Tier 1 Capital of subsidiary, net of regulatory adjustments (after applying the provision in paragraph 6.5.3)	<input type="text"/>	<input type="text"/>	
(i)	paid-up amount, reserves, retained earnings owned by Reporting Bank, gross of all regulatory adjustments	<input type="text"/>	<input type="text"/>	
(ii)	paid-up amount, reserves, retained earnings owned by third party investors gross of all regulatory adjustments	<input type="text"/>	<input type="text"/>	
(c)	Eligible Total Capital of subsidiary, net of regulatory adjustments (after applying the provision in paragraph 6.5.3)	<input type="text"/>	<input type="text"/>	
(i)	paid-up amount, reserves, retained earnings owned by Reporting Bank, gross of all regulatory adjustments	<input type="text"/>	<input type="text"/>	
(ii)	paid-up amount, reserves, retained earnings owned by third party investors gross of all regulatory adjustments	<input type="text"/>	<input type="text"/>	
(d)	Total risk-weighted assets of subsidiary	<input type="text"/>	<input type="text"/>	
(e)	Consolidated risk-weighted assets attributable to the subsidiary	<input type="text"/>	<input type="text"/>	
(f)	CET1 Capital			
(i)	Surplus CET1 Capital	86(a) - 9% x lower of 86(d) and 86(e)	<input type="text"/>	<input type="text"/>
(ii)	Surplus CET1 Capital attributable to third party investors	86(f)(i) x 86(a)(ii)/[sum of 86(a)(i) and 86(a)(ii)]	<input type="text"/>	<input type="text"/>
(iii)	CET1 capital held by third party investors less surplus attributable to third party investors	86(a)(ii) - 86(f)(ii)	<input type="text"/>	<input type="text"/>
(g)	Tier 1 Capital			
(i)	Surplus Tier 1 Capital	86(b) - 10.5% x lower of 86(d) and 86(e)	<input type="text"/>	<input type="text"/>
(ii)	Surplus Tier 1 Capital attributable to third party investors	86(g)(i) x 86(b)(ii)/[sum of 86(b)(i) and 86(b)(ii)]	<input type="text"/>	<input type="text"/>
(iii)	Tier 1 capital held by third party investors less surplus attributable to third party investors	86(b)(ii) - 86(g)(ii)	<input type="text"/>	<input type="text"/>
(h)	Eligible Total Capital			
(i)	Surplus Eligible Total Capital	86(c) - 12.5% x lower of 86(d) and 86(e)	<input type="text"/>	<input type="text"/>
(ii)	Surplus Eligible Total Capital attributable to third party investors	86(h)(i) x 86(c)(ii)/[sum of 86(c)(i) and 86(c)(ii)]	<input type="text"/>	<input type="text"/>
(iii)	Total capital held by third party investors less surplus attributable to third party investors	86(c)(ii) - 86(h)(ii)	<input type="text"/>	<input type="text"/>
(i)	CET1 Capital of subsidiary to be included in consolidated CET1 Capital	86(f)(iii)	<input type="text"/>	<input type="text"/>
(j)	Tier 1 Capital of subsidiary to be included in consolidated AT1 Capital	86(g)(iii) - 86(i)	<input type="text"/>	<input type="text"/>
(k)	Eligible Total Capital of subsidiary to be included in consolidated Tier 2 Capital	86(h)(iii) - 86(i) - 86(j)	<input type="text"/>	<input type="text"/>

[MAS Notice 637 (Amendment) 2016]

Part B: Capital Floors where a Reporting Bank has adopted the IRBA

	Solo (In S\$ million)	Group
1. Approach used for Capital Floor Calculation	Basel I / Current SA	
Basel I means the rules in MAS Notice 637 in force immediately before 1 Jan 2008 Current SA means the approach described in paragraph 5.1.3A		
2. Adjustment factor (%)		
3. Capital Resources Requirement using approach used for capital floors		
Total Capital Resources Requirement x adjustment factor		
(i) 10% of the RWA calculated using approach used for capital floors		
(ii) Adjustments for deductions and provisions referred to in paragraph 5.1.6(a) or (b), as the case may be		
(iii) Total Capital Resources Requirement (i) + (ii)		
4. Capital Resources Requirement using rules in this Notice		
Total Capital Resources Requirement		
(i) 10% of the RWA calculated using rules in this Notice		
(ii) Regulatory adjustments in CET1, AT1 Capital and Tier 2 Capital referred to in MAS Notice 637, Part V, paragraph 5.1.6(b)		
Where the amount calculated under item 3 is higher than the amount calculated under item 4, the Reporting Bank shall include a floor adjustment to RWA in item 4 of Part C, in accordance with paragraph 5.1.3C.		

Part C: Total Risk Weighted Assets

	Solo (In S\$ million)	Group
1. Credit RWA		
calculated under the		
(a) SA(CR), SA(EQ), SA(SE)		
(b) IRBA, IRBA(EQ), IRBA(SE)		
(c) SEC-IRBA, SEC-ERBA, SEC-SA, and RWA from Securitisation Exposures to which the SEC-IRBA, SEC-ERBA, and SEC-SA cannot be applied		
(e) (d) CVA RWA		
(e) (e) CCP RWA		
(e) (f) RWA pursuant to paragraph 6.1.3(p)(iii)		
Total Credit RWA		
2. Market RWA		
calculated under the		
(a) SA(MR)		
(b) IMA		
Total Market RWA		
3. Operational RWA		
calculated under the		
(a) BIA		
(b) SA(OR)		
(c) ASA		
(d) AMA		
Total Operational RWA		
4. Total RWA		
(a) Total RWA before floor adjustment		
(b) Floor adjustment to RWA (if any)		
(c) Total RWA after floor adjustment		

[MAS Notice 637 (Amendment) 2017]

MAS NOTICE 637: CAPITAL ADEQUACY REPORTING SCHEDULES
SCHEDULE 1D

Annex 12A

COUNTERCYCLICAL BUFFER

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

1. Private Sector Credit Exposures

Jurisdiction	Effective Country-Specific Countercyclical Buffer Requirement (%)	RWA for Private Sector Credit Exposures (In S\$ million)			Weighting applied to Effective Country-Specific Countercyclical Buffer Requirement (%)
		Banking Book	Trading Book	Total	
	(a)	(b)	(c)	(d=b+c)	(e=d/D)
All others					
Total					

2. Bank-Specific Countercyclical Buffer Requirement

Countercyclical Buffer (%)

SUMPRODUCT(a,e)

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

2. Coverage

- (a) IRBA, IRBA(EQ) and ~~IRBA(SE)~~ SEC-IRBA Coverage (applicable at Group level only)

Amount
(\$\$ million)

- | | | | | |
|-----|---|------------------|---|---|
| (i) | IRBA RWA + IRBA(EQ) RWA + IRBA(SE) SEC-IRBA RWA | S | | W |
| | Total Credit RWA | | | |
| | (To exclude SA(EQ) RWA in Total Credit RWA if equity exposures are excluded from IRBA(EQ) based on immateriality) | (B+S) or (B+S-A) | X | |

IRBA, IRBA(EQ), ~~IRBA(SE)~~ SEC-IRBA Coverage (%)

W/x

--

- | | | | | | | |
|------|--|--|--|---|--|---|
| (ii) | SA(CR) RWA + SA(EQ) RWA + SA(SE) SEC-ERBA RWA + SEC-SA RWA
Total Credit RWA
(To exclude SA(EQ) RWA if equity exposures are excluded from IRBA(EQ) based on immateriality) | B or (B-A) <table border="1"> <tr><td></td><td>Y</td></tr> </table>
(B+S) or (B+S-A) <table border="1"> <tr><td></td><td>Z</td></tr> </table> | | Y | | Z |
| | Y | | | | | |
| | Z | | | | | |

Coverage of SA(CR), SA(EQ), ~~SA(SE)~~ SEC-ERBA, SEC-SA, and Coverage

Y/Z

--

RWA from Securitisation Exposures to which the SEC-IRBA, SEC-ERBA, and SEC-SA cannot be applied (%)

- (b) Equity Exposures (applicable at Group level only)**

Aggregate Equity Exposures

_____A

Eligible Total Capital

	A
	B

Ratio of Aggregate Equity Exposures over Eligible Total Capital

AA/BB

- (c) Asset Classes/Sub-Classes under SA(CR), SA(EQ), SEC-ERBA, SEC-SA or ~~SA(SE)~~

Securitisation Exposures to which the SEC-IRBA, SEC-ERBA, and SEC-SA cannot be applied

(To list by asset class/sub-class or portfolios and legal entities and indicate by ticking if exposures are exempted from transitioning to IRBA, IRBA(EQ) or ~~IRBA(SE)~~ SEC-IRBA)

[illegible]

Amendments to Schedule 2-1A

MAS NOTICE 637: CREDIT RISK REPORTING SCHEDULES
SCHEDULE 2-1A

Annex 12B

SA(CR)

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

(In S\$ million)

1. Cash Items

- (a) Cash and cash equivalents
- (b) Gold bullion held in own vault or on an allocated basis backed by gold bullion liabilities
- (c) Receivable funds from DvP transactions up to and including the fourth business day after the settlement date
- (d) Cheques and other items in process of collection

Total for Cash Items

Notional Amount	Risk Weight	Credit RWA
(a)	(b)	(c=a×b)
	0%	
	0%	
	0%	
	20%	

2. Central Government and Central Bank Asset Class

- (a) On-balance Sheet Exposures
- Risk Weight 0%
- Risk Weight 20%
- Risk Weight 50%
- Risk Weight 100%
- Risk Weight 150%
- Sub-Total
- (b) Off-balance Sheet Exposures (excluding OTC Derivative Transactions & SFTs)
- Risk Weight 0%
- Risk Weight 20%
- Risk Weight 50%
- Risk Weight 100%
- Risk Weight 150%
- Sub-Total
- (c) OTC Derivative Transactions
- Risk Weight 0%
- Risk Weight 10%
- Risk Weight 20%
- Risk Weight 50%
- Risk Weight 100%
- Risk Weight 150%
- Sub-Total
- (d) SFTs
- Risk Weight 0%
- Risk Weight 10%
- Risk Weight 20%
- Risk Weight 50%
- Risk Weight 100%
- Risk Weight 150%
- Sub-Total

Total for Central Government and Central Bank Asset Class

Before CRM				CRM Adjustments				After CRM	Risk Weight	Credit RWA
Notional Amount	Gross Exposure		Net Exposure	(Outflows) due to Credit Protection Bought	Inflows due to Credit Protection Sold	Redistribution of Net Exposures due to FC(SA)	Decrease in Net Exposure due to FC(CA)	Net Exposure		
	Before applying qualifying bilateral netting agreements	After applying qualifying bilateral netting agreements (other than SFTs)	(d)	(e)	(f)	(g)	(h)	(i=d+e+f+g+h)	(j)	(k=ixj)
									0%	
									20%	
									50%	
									100%	
									150%	
						Sum to zero				
									0%	
									20%	
									50%	
									100%	
									150%	
						Sum to zero				
									0%	
									10%	
									20%	
									50%	
									100%	
									150%	
						Sum to zero				
									0%	
									10%	
									20%	
									50%	
									100%	
									150%	
						Sum to zero				

- (e) Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure

Total for Central Government and Central Bank Asset Class (Inclusive of the RWA due to the materiality threshold)

Materiality Threshold Amount
1250%

MAS NOTICE 637: CREDIT RISK REPORTING SCHEDULES
SCHEDULE 2-1A

SA(CR)

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

Annex 12B

	Before CRM				CRM Adjustments				After CRM	Risk Weight	Credit RWA
	Notional Amount	Before applying qualifying bilateral netting agreements	After applying qualifying bilateral netting agreements (other than SFTs)	Net Exposure	(Outflows) due to Credit Protection Bought	Inflows due to Credit Protection Sold	Redistribution of Net Exposures due to FC(SA)	Decrease in Net Exposure due to FC(CA)	Net Exposure		
				(d)	(e)	(f)	(g)	(h)	(i=d+e+f+g+h)	(j)	(k=ixj)
3. PSE Asset Class											
(a) On-balance Sheet Exposures											
Risk Weight 0%										0%	
Risk Weight 20%										20%	
Risk Weight 50%										50%	
Risk Weight 100%										100%	
Risk Weight 150%										150%	
Sub-Total							Sum to zero				
(b) Off-balance Sheet Exposures (excluding OTC Derivative Transactions & SFTs)											
Risk Weight 0%										0%	
Risk Weight 20%										20%	
Risk Weight 50%										50%	
Risk Weight 100%										100%	
Risk Weight 150%										150%	
Sub-Total							Sum to zero				
(c) OTC Derivative Transactions											
Risk Weight 0%										0%	
Risk Weight 10%										10%	
Risk Weight 20%										20%	
Risk Weight 50%										50%	
Risk Weight 100%										100%	
Risk Weight 150%										150%	
Sub-Total							Sum to zero				
(d) SFTs											
Risk Weight 0%										0%	
Risk Weight 10%										10%	
Risk Weight 20%										20%	
Risk Weight 50%										50%	
Risk Weight 100%										100%	
Risk Weight 150%										150%	
Sub-Total							Sum to zero				
Total for PSE Asset Class											
(e) Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure											
Total for PSE Asset Class (Inclusive of the RWA due to the materiality threshold)										1250%	
4. MDB Asset Class											
(a) On-balance Sheet Exposures											
Risk Weight 0%										0%	
Risk Weight 20%										20%	
Risk Weight 50%										50%	
Risk Weight 100%										100%	
Risk Weight 150%										150%	
Sub-Total							Sum to zero				
(b) Off-balance Sheet Exposures (excluding OTC Derivative Transactions & SFTs)											
Risk Weight 0%										0%	
Risk Weight 20%										20%	
Risk Weight 50%										50%	
Risk Weight 100%										100%	
Risk Weight 150%										150%	
Sub-Total							Sum to zero				
(c) OTC Derivative Transactions											
Risk Weight 0%										0%	
Risk Weight 10%										10%	
Risk Weight 20%										20%	
Risk Weight 50%										50%	
Risk Weight 100%										100%	
Risk Weight 150%										150%	
Sub-Total							Sum to zero				
(d) SFTs											
Risk Weight 0%										0%	
Risk Weight 10%										10%	
Risk Weight 20%										20%	
Risk Weight 50%										50%	
Risk Weight 100%										100%	
Risk Weight 150%										150%	
Sub-Total							Sum to zero				
Total for MDB Asset Class											
(e) Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure											
Total for MDB Asset Class (Inclusive of the RWA due to the materiality threshold)										1250%	

MAS NOTICE 637: CREDIT RISK REPORTING SCHEDULES
SCHEDULE 2-1A

SA(CR)

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

Annex 12B

	Before CRM			CRM Adjustments				After CRM		
	Notional Amount	Gross Exposure		(Outflows) due to Credit Protection Bought	Inflows due to Credit Protection Sold	Redistribution of Net Exposures due to FC(SA)	Decrease in Net Exposure due to FC(CA)	Net Exposure	Risk Weight	Credit RWA
		Before applying bilateral netting agreements	After applying qualifying bilateral netting agreements (other than SFTs)					(i=d+e+f+g+h)	(j)	(k=ixj)
			(d)	(e)	(f)	(g)	(h)			
5. Bank Asset Class										
(a) On-balance Sheet Exposures										
Risk Weight 0%									0%	
Risk Weight 20%									20%	
Risk Weight 50%									50%	
Risk Weight 100%									100%	
Risk Weight 150%									150%	
Sub-Total						Sum to zero				
(b) Off-balance Sheet Exposures (excluding OTC Derivative Transactions & SFTs)										
Risk Weight 0%									0%	
Risk Weight 20%									20%	
Risk Weight 50%									50%	
Risk Weight 100%									100%	
Risk Weight 150%									150%	
Sub-Total						Sum to zero				
(c) OTC Derivative Transactions										
Risk Weight 0%									0%	
Risk Weight 10%									10%	
Risk Weight 20%									20%	
Risk Weight 50%									50%	
Risk Weight 100%									100%	
Risk Weight 150%									150%	
Sub-Total						Sum to zero				
(d) SFTs										
Risk Weight 0%									0%	
Risk Weight 10%									10%	
Risk Weight 20%									20%	
Risk Weight 50%									50%	
Risk Weight 100%									100%	
Risk Weight 150%									150%	
Sub-Total						Sum to zero				
Total for Bank Asset Class										
(e) Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure								Materiality Threshold Amount		
Total for Bank Asset Class (Inclusive of the RWA due to the materiality threshold)									1250%	
										E
6. Corporate Asset Class										
(a) On-balance Sheet Exposures										
Risk Weight 0%									0%	
Risk Weight 20%									20%	
Risk Weight 50%									50%	
Risk Weight 100%									100%	
Risk Weight 150%									150%	
Sub-Total						Sum to zero				
(b) Off-balance Sheet Exposures (excluding OTC Derivative Transactions & SFTs)										
Risk Weight 0%									0%	
Risk Weight 20%									20%	
Risk Weight 50%									50%	
Risk Weight 100%									100%	
Risk Weight 150%									150%	
Sub-Total						Sum to zero				
(c) OTC Derivative Transactions										
Risk Weight 0%									0%	
Risk Weight 10%									10%	
Risk Weight 20%									20%	
Risk Weight 50%									50%	
Risk Weight 100%									100%	
Risk Weight 150%									150%	
Sub-Total						Sum to zero				
(d) SFTs										
Risk Weight 0%									0%	
Risk Weight 10%									10%	
Risk Weight 20%									20%	
Risk Weight 50%									50%	
Risk Weight 100%									100%	
Risk Weight 150%									150%	
Sub-Total						Sum to zero				
Total for Corporate Asset Class										
(e) Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure								Materiality Threshold Amount		
Total for Corporate Asset Class (Inclusive of the RWA due to the materiality threshold)									1250%	
										F

MAS NOTICE 637: CREDIT RISK REPORTING SCHEDULES
SCHEDULE 2-1A

SA(CR)

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

Annex 12B

		Before CRM			CRM Adjustments				After CRM			
		Notional Amount	Gross Exposure			(Outflows) due to Credit Protection Bought	Inflows due to Credit Protection Sold	Redistribution of Net Exposures due to FC(SA)	Decrease in Net Exposure due to FC(CA)	Net Exposure	Risk Weight	Credit RWA
			Before applying qualifying bilateral netting agreements	After applying qualifying bilateral netting agreements (other than SFTs)	(d)	(e)	(f)	(g)	(h)	(i=d+e+f+g+h)	(j)	(k=ix)
7.	Regulatory Retail Asset Class											
(a)	On-balance Sheet Exposures											
	Risk Weight 0%										0%	
	Risk Weight 20%										20%	
	Risk Weight 50%										50%	
	Risk Weight 75% - Exposures to individuals										75%	
	Risk Weight 75% - Exposures to small business										75%	
	Risk Weight 100%										100%	
	Risk Weight 150%										150%	
	Sub-Total						Sum to zero					
(b)	Off-balance Sheet Exposures (excluding OTC Derivative Transactions & SFTs)											
	Risk Weight 0%										0%	
	Risk Weight 20%										20%	
	Risk Weight 50%										50%	
	Risk Weight 75% - Exposures to individuals										75%	
	Risk Weight 75% - Exposures to small business										75%	
	Risk Weight 100%										100%	
	Risk Weight 150%										150%	
	Sub-Total						Sum to zero					
(c)	OTC Derivative Transactions											
	Risk Weight 0%										0%	
	Risk Weight 10%										10%	
	Risk Weight 20%										20%	
	Risk Weight 50%										50%	
	Risk Weight 75% - Exposures to individuals										75%	
	Risk Weight 75% - Exposures to small business										75%	
	Risk Weight 100%										100%	
	Risk Weight 150%										150%	
	Sub-Total						Sum to zero					
(d)	SFTs											
	Risk Weight 0%										0%	
	Risk Weight 10%										10%	
	Risk Weight 20%										20%	
	Risk Weight 50%										50%	
	Risk Weight 75% - Exposures to individuals										75%	
	Risk Weight 75% - Exposures to small business										75%	
	Risk Weight 100%										100%	
	Risk Weight 150%										150%	
	Sub-Total						Sum to zero					
	Total for Regulatory Retail Asset Class											
(e)	Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure									Materiality Threshold Amount		
	Total for Regulatory Retail Asset Class (Inclusive of the RWA due to the materiality threshold)										1250%	
												G
8.	Residential Mortgage Asset Class											
(a)	On-balance Sheet Exposures											
	Risk Weight 0%										0%	
	Risk Weight 20%										20%	
	Risk Weight 35%										35%	
	Risk Weight 50%										50%	
	Risk Weight 75%										75%	
	Risk Weight 100%										100%	
	Sub-Total						Sum to zero					
(b)	Off-balance Sheet Exposures											
	Risk Weight 0%										0%	
	Risk Weight 20%										20%	
	Risk Weight 35%										35%	
	Risk Weight 50%										50%	
	Risk Weight 75%										75%	
	Risk Weight 100%										100%	
	Sub-Total						Sum to zero					
	Total for Residential Mortgage Asset Class											
(c)	Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure									Materiality Threshold Amount		
	Total for Residential Mortgage Asset Class (Inclusive of the RWA due to the materiality threshold)										1250%	
												H

MAS NOTICE 637: CREDIT RISK REPORTING SCHEDULES
SCHEDULE 2-1A

Annex 12B

SA(CR)

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

8A. CRE Asset Class

(a) On-balance Sheet Exposures

- Risk Weight 0%
Risk Weight 20%
Risk Weight 35%
Risk Weight 50%
Risk Weight 75%
Risk Weight 100%
Risk Weight 150%

Sub-Total

		Sum to zero	

0%
20%
35%
50%
75%
100%
150%

(b) Off-balance Sheet Exposures

- Risk Weight 0%
Risk Weight 20%
Risk Weight 35%
Risk Weight 50%
Risk Weight 75%
Risk Weight 100%
Risk Weight 150%

Sub-Total

		Sum to zero	

0%
20%
35%
50%
75%
100%
150%

Total for CRE Asset Class

(c) Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure

Total for CRE Asset Class (Inclusive of the RWA due to the materiality threshold)

Materiality
Threshold
Amount

1250%

Net exposure
before CRM,
where
applicable

Net exposure
(after CRM,
where
applicable)

Risk
Weight

100%

Credit RWA

9. Other Exposures Asset Class

(a) Premises, plant and equipment and other fixed assets

(b) Real Estate

(c) Exposures to individuals excluded from regulatory retail asset class

(d) Other exposures/assets not included in above categories ~~ee~~ and not included in the IRBA, SA(EQ), IRBA(EQ), SEC-SA, SEC-ERBA, SEC-IRBA and ~~ee-IRBA(EE)~~
Securitisation Exposures to which the SEC-IRBA, SEC-ERBA, and SEC-SA cannot be applied
(Pls itemise and specify)

Total for Other Exposures Asset Class

100%

100%

100%

100%

100%

100%

Materiality
Threshold
Amount

1250%

(e) Materiality threshold below which no payment will be made by the protection provider in the event of loss on a SA exposure

Total for Other Exposures Asset Class (Inclusive of the RWA due to the materiality threshold)

10. Total SA(CR) net exposures after CRM, where applicable

Total SA(CR) RWA

K=SUM(A:J)

(MAS Notice 637 (Amendment) 2016)

MAS NOTICE 637: MARKET RISK REPORTING SCHEDULES
SCHEDULE 3-1A

Annex 12C

SA(MR) - INTEREST RATE RISK

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

In SGD Equivalent of Foreign Currency (\$\$ million)

Gross Position		Net Position		Net Positions subject to Risk Charge	Specific Risk Charge	Capital Requirement
Long	Short	Long	Short			
				(a)	(b)	(a) + (b)

1. Specific Risk

(i) Positions **not covered under SA(SE) or IRBA(SE)** other than Securitisation Positions

Government	Credit quality grade as set out in Table 7R-1 of Annex 7R of Part VII						
	1					0.00%	
	2 or 3					0.25%	
		6 months or less				1.00%	
		more than 6 and up to 24 months				1.60%	
	4 or 5	more than 24 months				8.00%	
	6					12.00%	
	Unrated					8.00%	
Qualifying		6 months or less				0.25%	
		more than 6 and up to 24 months				1.60%	
		more than 24 months					
Others	Credit quality grade as set out in Table 7R-1 of Annex 7R of Part VII						
	4					8.00%	
	5 or 6					12.00%	
	Unrated					8.00%	
Sub-Total							

(ii) Securitisation/Resecuritisation Positions (Non-Correlation Trading)

In SGD Equivalent of Foreign Currency (\$\$ million)

Gross Position		Net Position		Net Positions subject to Risk Charge	Exposure-weighted specific Risk Charge	Capital Requirement
Long	Short	Long	Short			
				(a)	(b)	(a) + (b)
Positions covered under SEC-IRBA						
Positions covered under SEC-ERBA						
Positions covered under SEC-SA						
Positions to which SEC-IRBA, SEC-ERBA and SEC-SA cannot be applied						
Sub-Total						

Securitisation positions covered under SA(SE)	Credit quality grade as set out in Table 7R-3 of Annex 7R of Part VII	Credit quality grade as set out in Table 7R-4 of Annex 7R of Part VII							
1-4	I	I	cancelled	cancelled	cancelled	cancelled	cancelled	1-60%	cancelled
5-6	II	II	cancelled	cancelled	cancelled	cancelled	cancelled	4-00%	cancelled
7-8	III	III	cancelled	cancelled	cancelled	cancelled	cancelled	8-00%	cancelled
9-11			cancelled	cancelled	cancelled	cancelled	cancelled	28-00%	cancelled
12	IV or Unrated	IV or Unrated	cancelled	cancelled	cancelled	cancelled	cancelled	100-00%	cancelled

Sub-Total									cancelled
									cancelled

Resecuritisation positions covered under SA(SE)	Credit quality grade as set out in Table 7R-3 of Annex 7R of Part VII	Credit quality grade as set out in Table 7R-4 of Annex 7R of Part VII							
1-4	I	I	cancelled	cancelled	cancelled	cancelled	cancelled	3-20%	cancelled
5-6	II	II	cancelled	cancelled	cancelled	cancelled	cancelled	0-00%	cancelled
7-8	III	III	cancelled	cancelled	cancelled	cancelled	cancelled	18-00%	cancelled
9-11			cancelled	cancelled	cancelled	cancelled	cancelled	52-00%	cancelled
12	IV or Unrated	IV or Unrated	cancelled	cancelled	cancelled	cancelled	cancelled	100-00%	cancelled

Sub-Total									cancelled
									cancelled

Securitisation positions covered under IRBA(SE)	Credit quality grade as set out in Table 7R-3 of Annex 7R of Part VII	Credit quality grade as set out in Table 7R-4 of Annex 7R of Part VII							
Senior positions and exposures using 1AM	I	I	cancelled	cancelled	cancelled	cancelled	cancelled	0-56%	cancelled
1			cancelled	cancelled	cancelled	cancelled	cancelled	0-64%	cancelled
2			cancelled	cancelled	cancelled	cancelled	cancelled	0-00%	cancelled
3			cancelled	cancelled	cancelled	cancelled	cancelled	0-00%	cancelled
4	II	II	cancelled	cancelled	cancelled	cancelled	cancelled	1-60%	cancelled
5			cancelled	cancelled	cancelled	cancelled	cancelled	2-80%	cancelled
6			cancelled	cancelled	cancelled	cancelled	cancelled	4-00%	cancelled
7	III	III	cancelled	cancelled	cancelled	cancelled	cancelled	6-00%	cancelled
8			cancelled	cancelled	cancelled	cancelled	cancelled	8-00%	cancelled
9			cancelled	cancelled	cancelled	cancelled	cancelled	10-00%	cancelled
10			cancelled	cancelled	cancelled	cancelled	cancelled	20-00%	cancelled
11			cancelled	cancelled	cancelled	cancelled	cancelled	34-00%	cancelled
12	IV	IV	cancelled	cancelled	cancelled	cancelled	cancelled	52-00%	cancelled
			cancelled	cancelled	cancelled	cancelled	cancelled	100-00%	cancelled
Other exposures	I	I	cancelled	cancelled	cancelled	cancelled	cancelled	0-56%	cancelled
1			cancelled	cancelled	cancelled	cancelled	cancelled	1-20%	cancelled
2			cancelled	cancelled	cancelled	cancelled	cancelled	3-44%	cancelled
3	II	II	cancelled	cancelled	cancelled	cancelled	cancelled	1-60%	cancelled
4			cancelled	cancelled	cancelled	cancelled	cancelled	2-80%	cancelled
5			cancelled	cancelled	cancelled	cancelled	cancelled	4-00%	cancelled
6			cancelled	cancelled	cancelled	cancelled	cancelled	6-00%	cancelled
7	III	III	cancelled	cancelled	cancelled	cancelled	cancelled	8-00%	cancelled
8			cancelled	cancelled	cancelled	cancelled	cancelled	10-00%	cancelled
9			cancelled	cancelled	cancelled	cancelled	cancelled	20-00%	cancelled
10			cancelled	cancelled	cancelled	cancelled	cancelled	34-00%	cancelled
11			cancelled	cancelled	cancelled	cancelled	cancelled	52-00%	cancelled
12	IV	IV	cancelled	cancelled	cancelled	cancelled	cancelled	100-00%	cancelled
Exposures backed by non-granular pools	I	I	cancelled	cancelled	cancelled	cancelled	cancelled	1-60%	cancelled
1			cancelled	cancelled	cancelled	cancelled	cancelled	2-80%	cancelled
2			cancelled	cancelled	cancelled	cancelled	cancelled	3-00%	cancelled
3	II	II	cancelled	cancelled	cancelled	cancelled	cancelled	2-00%	cancelled
4			cancelled	cancelled	cancelled	cancelled	cancelled	2-80%	cancelled
5			cancelled	cancelled	cancelled	cancelled	cancelled	4-00%	cancelled
6			cancelled	cancelled	cancelled	cancelled	cancelled	6-00%	cancelled
7	III	III	cancelled	cancelled	cancelled	cancelled	cancelled	8-00%	cancelled
8			cancelled	cancelled	cancelled	cancelled	cancelled	10-00%	cancelled
9			cancelled	cancelled	cancelled	cancelled	cancelled	20-00%	cancelled
10			cancelled	cancelled	cancelled	cancelled	cancelled	34-00%	cancelled
11			cancelled	cancelled	cancelled	cancelled	cancelled	52-00%	cancelled
12	IV	IV	cancelled	cancelled	cancelled	cancelled	cancelled	100-00%	cancelled
Unrated Positions			cancelled	cancelled	cancelled	cancelled	cancelled		cancelled
			Calculation method for unrated positions						cancelled
									cancelled

In SGD Equivalent of Foreign Currency (56 million)

Gross Position		Net Position		Net Positions subject to Risk Charge	Specific Risk Charge	Capital Requirement	
Long	Short	Long	Short				
		(A)	(B)	(2A-B)×(C)			
Resecuritisation positions covered under IRBA (SE)	Credit quality grade as set out in Table 7R-3 of Annex 7R of Part VII	Credit quality grade as set out in Table 7R-4 of Annex 7R of Part VII					
Senior positions and exposures using 1AM	I	I		cancelled	cancelled	1-60%	cancelled
1				cancelled	cancelled	2-00%	cancelled
2				cancelled	cancelled	2-80%	cancelled
3				cancelled	cancelled	3-20%	cancelled
4	II	II		cancelled	cancelled	4-00%	cancelled
5				cancelled	cancelled	8-00%	cancelled
6				cancelled	cancelled	12-00%	cancelled
7	III	III		cancelled	cancelled	16-00%	cancelled
8				cancelled	cancelled	24-00%	cancelled
9				cancelled	cancelled	34-00%	cancelled
10				cancelled	cancelled	40-00%	cancelled
11				cancelled	cancelled	60-00%	cancelled
12	IV	IV		cancelled	cancelled	100-00%	cancelled
Other exposures	I	I		cancelled	cancelled	2-40%	cancelled
1				cancelled	cancelled	3-20%	cancelled
2				cancelled	cancelled	4-00%	cancelled
3	II	II		cancelled	cancelled	5-20%	cancelled
4				cancelled	cancelled	6-00%	cancelled
5				cancelled	cancelled	10-00%	cancelled
6				cancelled	cancelled	10-00%	cancelled
7	III	III		cancelled	cancelled	28-00%	cancelled
8				cancelled	cancelled	40-00%	cancelled
9				cancelled	cancelled	52-00%	cancelled
10				cancelled	cancelled	60-00%	cancelled
11				cancelled	cancelled	100-00%	cancelled
12	IV	IV		cancelled	cancelled		cancelled
	Unrated Positions			cancelled	cancelled		cancelled
				Calculation method for unrated positions			
Sub-Total							cancelled
							cancelled

Correlation Trading Portfolio							
-------------------------------	--	--	--	--	--	--	--

A

Method Used	
-------------	--

Interest Rate Positions

[illegible][illegible]

8

- Additional Capital Requirement for Options
 - Simplified Method
 - Delta-Plus Method - Capital Requirement for Gamma Risk and Vega Risk
 - Scenario Approach

C or D or E F

A+B+F

MAS NOTICE 637: OTHER REPORTING SCHEDULES
SCHEDULE 5E

ELIGIBLE FINANCIAL COLLATERAL AND ELIGIBLE IRBA COLLATERAL

Name of the Reporting Bank:	
Statement as at:	
Scope of Reporting:	

**Table 5E-Collateral for the SA(CR), SEC-ERBA and ~~SA(SE)~~ SEC-SA
(In S\$ million)**

[illegible]

Name of the Reporting Bank:

Statement as at:

Scope of Reporting:

(In S\$ million)

[illegible]

~~(a) Cash (including certificates of deposit and other similar instruments) on deposit with the Reporting Bank~~

(b) Gold

(d) ~~Equity Security (including convertible bonds)~~

(f) Unit in a collective investment scheme

~~Sub-Total for Eligible Financial Coll~~

Sub-Total for Eligible Financial Collateral under FC(SA)

~~[MAS Notice 637 (Amendment No. 2) 2014]~~

(a) Cash (including certificates of deposit and other similar

	Instrument
(b)	Gold

(c) Debt Security (excluding structured note)

(e) Debt security which is a structured note

(f) Unit in a collective investment scheme

Sub-Total for Eligible Financial Colla

EMAG N-111-0

[MAS Notice 637 (Amendment No. 2) 2014]

(a) Eligible CRE

(b)	Eligible RRE
(c)	Eligible Receivables

(d) Eligible Physical Coll

(f) Eligible Physical Collateral - Land in another juris

(h) Eligible Physical Collateral - Aircrafts

(i) Eligible Physical Collateral - others

and the total for English and other countries

Total for Collateral for the IRBA and ~~IRBA(SE)~~ SEC-IRBA

[illegible]