

MAS NOTICE 637 (AMENDMENT) 2018

Issued on: 5 October 2018

RISK BASED CAPITAL ADEQUACY REQUIREMENTS FOR BANKS INCORPORATED IN SINGAPORE

Introduction

1 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 28 December 2017 (the "Original Notice").

2 This document shall be interpreted as follows:

- (a) Text which is coloured and struck through represent deletions, and will not appear in the untracked version of MAS Notice 637 revised on 5 October 2018 ("Published Version");
- (b) Text which is coloured and underlined represent insertions, and will appear in the Published Version;
- (c) Text which is highlighted in yellow are annotations to describe changes, and will not appear in the Published Version. 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.

3 The amendments reflected in this document shall take effect on 8 October 2018.

4 This document is to be used for reference only. In the event of discrepancies between the amendments in this document and the Published Version, the Published Version shall prevail.

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 which predominantly issues commercial paper to third party investors with an original maturity of one year or less and is backed by assets or other exposures held in a bankruptcy-remote SPE; [MAS Notice 637 (Amendment No. 2) 2017]
ABCP programme sponsor	means an entity which – (a) 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) places ABCP securities into the market, or provides liquidity or credit enhancements to the ABCP; [MAS Notice 637 (Amendment No. 2) 2017]
Accounting Loss Allowance	means the loss allowance for expected credit losses on the selected non-credit-impaired exposures ^{AA} set out in Appendix C of MAS Notice 612, that is determined and recognised in accordance with the impairment measurement requirements under FRS 109; [MAS Notice 637 (Amendment No. 3) 2017]
Accounting Standards	has the same meaning as in section 4(1) of the Companies Act (Cap. 50);
affiliate	means, (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

^{AA} For the avoidance of doubt, “non-credit-impaired exposures” means credit exposures that do not fall within the definition of “credit-impaired financial asset” under FRS 109.

[MAS Notice 637 (Amendment No. 3) 2017]

ordinary shares or controls 20% or more of the voting power in the entity;

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

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;

approved exchange has the same meaning as in section 2 of the Securities and Futures Act (Cap. 289);

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 means –
(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	<p>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;</p> <p style="text-align: right;">[MAS Notice 637 (Amendment) 2012] [MAS Notice 637 (Amendment No. 2) 2014]</p>
CCP RWA	<p>means the risk-weighted assets for exposures to CCPs calculated in accordance with Annex 7AJ;</p> <p style="text-align: right;">[MAS Notice 637 (Amendment) 2012]</p>
CCP trade exposures	<p>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;</p> <p style="text-align: right;">[MAS Notice 637 (Amendment) 2012] [MAS Notice 637 (Amendment) 2016]</p>
CCR or counterparty credit risk	<p>means the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows;</p>
CCR internal models method	<p>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;</p>
CDR	<p>means cumulative default rate;</p>
CET1 Capital or Common Equity Tier 1 Capital	<p>means -</p> <p>(a) in relation to a Reporting Bank, the sum of the items set out in paragraph 6.1.1; and</p> <p>(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";</p> <p style="text-align: right;">[MAS Notice 637 (Amendment No. 2) 2014]</p>
CET1 capital instrument	<p>means a capital instrument which complies with the requirements set out in paragraph 6.1.2;</p>

[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^{AB};

[MAS Notice 637 (Amendment) 2012]

client 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;

[MAS Notice 637 (Amendment) 2012]

[MAS Notice 637 (Amendment) 2014]

client sub-account 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;

[MAS Notice 637 (Amendment) 2016]

^{AB} 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]

[MAS Notice 637 (Amendment No. 3) 2017]

closed-end fund has the same meaning as in section 2 of the Securities and Futures Act (Cap. 289);

CM or capital measure has the same meaning as Tier 1 Capital;
[MAS Notice 637 (Amendment) 2014]

collective investment scheme has the same meaning as in section 2 of the Securities and Futures Act (Cap. 289);

co-operative society means a co-operative society registered under the Co-operative Societies Act (Cap. 62);
[MAS Notice 637 (Amendment No. 2) 2014]

core market participant means any of the entities listed in Annex 7L of Part VII;

corporate exposure means –
(a) in relation to the SA(CR), an exposure that falls within the definition in paragraph 7.3.1(f); and
(b) in relation to the IRBA, an exposure that falls within the definition in paragraph 7.4.15(a);

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;

[MAS Notice 637 (Amendment No. 2) 2017]

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: <ul style="list-style-type: none"> (a) OTC derivative transaction; (b) repo, reverse repo, securities or commodities lending transaction and securities or commodities borrowing transaction; and (c) margin lending transaction;

[MAS Notice 637 (Amendment No. 2) 2017]

CTP or correlation trading portfolio	means a portfolio that incorporates – <ul style="list-style-type: none"> (a) securitisation exposures and n-th-to-default credit derivatives meeting the following criteria: <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>
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- (b) positions that hedge the securitisation exposures and n-th-to-default credit derivatives described in paragraph (a) above, where –
- (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,

and for the purpose of this definition, a two-way market is deemed to exist where there are independent bona fide offers to buy and sell so that a price reasonably related to the last sales price or current bona fide competitive bid and offer quotations can be determined within one day and trades settled at such price within a relatively short time conforming to trade custom;

currency mismatch means a situation where an exposure and the collateral or credit protection provided in support of it are denominated in different currencies;

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^{AC} 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]

^{AC} 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.

[MAS Notice 637 (Amendment) 2012]
[MAS Notice 637 (Amendment No. 3) 2017]

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;
early amortisation provision	means a contractual provision that, once triggered, accelerates the reduction of the investor's interests in underlying exposures of a securitisation of revolving credit facilities ^{AD} , and allows investors to be paid out prior to the originally stated maturity of the securities issued; [MAS Notice 637 (Amendment No. 2) 2017]
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;

^{AD} 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.

[MAS Notice 637 (Amendment No. 2) 2017]
[MAS Notice 637 (Amendment No. 3) 2017]

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;
eligible financial collateral	means – (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, where the requirements and guidelines set out in Annex 7F of Part VII are satisfied;
eligible IRBA collateral	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;
eligible liquidity facility	in relation to the leverage ratio, means an off-balance sheet securitisation exposure that is 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 “10” 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 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, 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;

[MAS Notice 637 (Amendment No. 3) 2017]

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 means -

- (a) in the case of a Reporting Bank using the SA(CR), SA(EQ), SEC-IRBA, SEC-ERBA or SEC-SA, a guarantor or protection seller which is –
 - (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 –
 - (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, other than an SPE, which has a credit quality grade of "2" or better as set out in Table

7R-1 at the time the credit protection was provided, and a credit quality grade of "3" or better as set out in Table 7R-1 during the period of recognition of the effects of CRM;

- (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 –
 - (i) any entity in paragraphs (a)(i) to (v) above; or
 - (ii) any entity which is internally rated; and
- (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;

[MAS Notice 637 (Amendment No. 2) 2017]

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]

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;

^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.

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 109	means the Singapore Financial Reporting Standard 109; [MAS Notice 637 (Amendment No. 3) 2017]
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 allowance	means loss allowance for credit exposures that do not fall within the definition of "credit-impaired financial asset" under FRS 109 ^{CA} ; [MAS Notice 637 (Amendment No. 3) 2017]
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,

^{CA} For avoidance of doubt, general allowances include loss allowances maintained by a bank in excess of the Accounting Loss Allowance.

[MAS Notice 637 (Amendment No. 3) 2017]

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;

IAA or internal assessment approach means the method for calculating credit risk-weighted exposure amounts for securitisation exposures set out in Annex 7AF 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 No. 2) 2017]

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;

^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).

implicit support	<p>in relation to a securitisation, means any support that a Reporting Bank provides to a securitisation in excess of its predetermined contractual obligations;</p> <p style="text-align: right;">[MAS Notice 637 (Amendment No. 2) 2017]</p>
initial margin	<p>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;</p> <p style="text-align: right;">[MAS Notice 637 (Amendment) 2012] [MAS Notice 637 (Amendment) 2016]</p>
insurance subsidiary	<p>means –</p> <ul style="list-style-type: none"> (a) a subsidiary which carries on insurance business as an insurer; (b) a subsidiary which is – <ul style="list-style-type: none"> (i) a holding company of the subsidiary referred to in subparagraph (a); and (ii) subject to specific capital adequacy requirements set out in a direction issued by the Authority under section 28 of the Monetary Authority of Singapore Act; or (c) a subsidiary of the holding company referred to in subparagraph (b), which is included by the holding company in its computation of specific capital adequacy requirements set out in a direction issued by the Authority under section 28 of the Monetary Authority of Singapore Act. <p style="text-align: right;">[MAS Notice 637 (Amendment No. 3) 2017]</p>
internal loss data	<p>in relation to the AMA, means the internal data on operational risk losses;</p>
IOSCO	<p>means the International Organisation of Securities Commissions;</p>
IPRE	<p>means income-producing real estate;</p>
IRBA or internal ratings-based approach	<p>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;</p>
IRBA adoption date	<p>means the date from which a Reporting Bank begins using the IRBA for calculating any part of its regulatory capital requirements;</p>

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	<p>means –</p> <p>(a) any equity exposure (excluding equity investments in funds held in the banking book) for which a Reporting Bank is using the IRBA(EQ) to calculate its credit risk-weighted exposure amount; or</p> <p>(b) in the case where the Reporting Bank uses IRBA(EQ) to calculate the credit risk-weighted exposure amount for its equity exposures, any equity investment in funds held in the banking book;</p> <p style="text-align: right;">[MAS Notice 637 (Amendment No. 3) 2017]</p>
IRB pool or internal ratings-based pool	<p>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;</p> <p style="text-align: right;">[MAS Notice 637 (Amendment No. 2) 2017]</p>
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	in relation to a multi-level client structure, means the financial institution clearing through: (a) a client of a clearing member; or (b) a client of a client of a clearing member;
	[MAS Notice 637 (Amendment) 2016]
LR or leverage ratio	means the percentage calculated in accordance with paragraph 1.1 of Annex 4A;
	[MAS Notice 637 (Amendment) 2014]
M or effective maturity	in relation to the IRBA, means the maturity of an exposure, determined in the manner set out in Annex 7Z of Part VII;
major stake company	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;
margin agreement	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;
margin lending transaction	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;
margin period of risk	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;
margin threshold	means the largest amount of an exposure that remains outstanding until one party has the right to call for collateral;
market RWA	means the risk-weighted assets for market risks determined in the manner set out in Part VIII;
maturity mismatch	means a situation where the residual maturity of the credit risk mitigant is less than the residual maturity of the underlying credit exposure;
MDB	means a multilateral development bank;
mixed pool	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; [MAS Notice 637 (Amendment No. 2) 2017]
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 clause¹;

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;

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]

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

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.

^{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.

(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;

originator means –
(a) an entity which, either itself or through related entities, directly or indirectly, creates the exposure being securitised²; or
(b) any entity which sponsors a securitisation, i.e. 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)^{2A}, and includes an ABCP programme sponsor;

[MAS Notice 637 (Amendment No. 2) 2017]

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;

^{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.

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.

^{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.

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;

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;
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} ; [MAS Notice 637 (Amendment No. 2) 2017]
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;

^{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.

[MAS Notice 637 (Amendment No. 2) 2017]

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

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 – (a) any equity exposure (excluding equity investments in funds held in the banking book) for which a Reporting Bank is using the SA(EQ) to calculate its credit risk-weighted exposure amount; or (b) in the case where the Reporting Bank uses SA(EQ) to calculate the credit risk-weighted exposure amount for its equity exposures, any equity investment in funds held in the banking book;

[MAS Notice 637 (Amendment No. 3) 2017]

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;

SA pool or standardised approach pool in relation to a securitisation, means a pool of underlying exposures to a securitisation for which a Reporting Bank –
(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; or
(b) is prohibited by the Authority from treating the pool as a IRB pool or a mixed pool;

[MAS Notice 637 (Amendment No. 2) 2017]

SEC-ERBA or securitisation external ratings-based approach 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;

[MAS Notice 637 (Amendment No. 2) 2017]

SEC-IRBA or securitisation internal ratings-based approach 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;

[MAS Notice 637 (Amendment No. 2) 2017]

SEC-SA or securitisation standardised approach 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;

[MAS Notice 637 (Amendment No. 2) 2017]

securities means –
(a) any securities as defined in section 2 of the Securities and Futures Act (Cap. 289);

(b) any specified securities-based derivatives contracts as defined in section 2 of the Securities and Futures Act (Cap. 289); or

(c) any units in a collective investment scheme;
~~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 –

- (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:

- (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 –

- (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), regardless of whether it was retained by the Reporting Bank at, or repurchased by the Reporting Bank after, the origination of the securitisation;
- (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); and
- (c) reserve accounts (e.g. cash collateral accounts) recorded as an asset by the originating bank;

[MAS Notice 637 (Amendment No. 2) 2017]

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;
senior securitisation exposure	in relation to a securitisation, is an exposure to a senior securitisation tranche; [MAS Notice 637 (Amendment No. 2) 2017]
senior securitisation tranche	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 exposures ³ ; [MAS Notice 637 (Amendment No. 2) 2017]
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;
SFT	means a securities or commodities financing transaction comprising any one of the following: (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; [MAS Notice 637 (Amendment) 2012]
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; [MAS Notice 637 (Amendment) 2012]

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.
[MAS Notice 637 (Amendment No. 2) 2017]

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 allowance	means loss allowance for credit exposures that fall within the definition of "credit-impaired financial asset" under FRS 109; [MAS Notice 637 (Amendment No. 3) 2017]
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 section 240AA(5) of the Securities and Futures Act (Cap. 289) 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.

[MAS Notice 637 (Amendment No. 2) 2017]
[MAS Notice 637 (Amendment No. 3) 2017]

Amendments to Part VII

Part VII: Credit Risk

Division 4: IRBA

Sub-division 7: Calculation of K for IRBA Wholesale Asset Class

Amendments to Footnote 160A

7.4.21A Notwithstanding paragraph 7.4.21 above, for all IRBA exposures to financial institutions^{160A} subject to minimum prudential standards and supervision by a regulatory agency ("regulated financial institutions") with total assets greater than or equal to USD 100 billion (or equivalent) and financial institutions^{160A} which are not subject to minimum prudential standards and supervision by a regulatory agency ("unregulated financial institutions")^{160B}, a Reporting Bank shall calculate K_{corp} , K_{sov} , K_{bank} and K_{sl} using the following formula:

$$\begin{aligned} \text{Correlation (R_FI)} &= 1.25 \times [0.12 \times (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50)) \\ &\quad + 0.24 \times [1 - (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50))]] \\ \text{Maturity adjustment (b)} &= (0.11852 - 0.05478 \times \ln(\text{PD}))^2 \\ \text{Capital requirement (K}_{corp}, \text{K}_{sov}, \text{K}_{bank} \text{ or K}_{sl}) \\ &= [\text{LGD} \times \text{N}[(1 - \text{R_FI})^{-0.5} \times \text{G}(\text{PD}) + (\text{R_FI} / (1 - \text{R_FI}))^{0.5} \times \\ &\quad \text{G}(0.999)] - \text{PD} \times \text{LGD}] \times (1 - 1.5 \times \text{b})^{-1} \times (1 + (\text{M} - 2.5) \times \text{b}) \end{aligned}$$

For the purpose of determining whether the USD 100 billion (or equivalent) total asset threshold is met, the Reporting Bank shall use the reported total assets of the consolidated group of companies which include the regulated financial institution. The reported total assets figure shall be taken from the most recent audited financial statements.

Division 5: Equity Exposures

Sub-division 5: Equity Investments in Funds

Amendments to Paragraph 7.5.61A

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 ~~2-295A~~ of the Securities and Futures Act (~~ChapterCap. 289~~) and business trusts as defined under the Business Trust Act (~~ChapterCap. 31A~~). A Reporting Bank's holdings of units in real estate investment trusts as defined under section ~~2-295A~~ of the Securities and Futures Act (~~ChapterCap. 289~~) and business trusts as defined under the Business Trust Act (~~ChapterCap. 31A~~) shall be treated as holdings in a single equity security for the purpose of risk-weighting.

^{160A} For the purpose of this paragraph, "financial institutions" refers to the entities specified in Annex 2A of Part II, ~~and~~ collective investment schemes and closed-end funds ~~as respectively defined in the Securities and Futures Act (Chapter 289)~~.

^{160B} For the purpose of this paragraph, the Authority may from time to time specify any entity or group of entities as unregulated financial institutions.

CRM

Section 2: Recognition of Collateral

Amendments to Paragraphs 2.2 – 2.3

- 2.2 For a Reporting Bank using the FC(SA), eligible financial collateral comprises^{226A} –
- (a) cash (as well as certificates of deposit or other similar instruments^{226B} issued by the Reporting Bank)²²⁷ on deposit with the Reporting Bank;²²⁸
 - (b) gold;
 - (c) any debt security^{228A} –
 - (i) with an original maturity of one year or less that has a credit quality grade of “III” or better as set out in Table 7R-2 of Annex 7R of Part VII; or
 - (ii) with an original maturity of more than one year that has a credit quality grade of “4” or better as set out in Table 7R-1 of Annex 7R of Part VII if it is issued by a central government or central bank, or a credit quality grade of “3” or better as set out in Table 7R-1 of Annex 7R of Part VII if it is issued by any other entity;
 - (d) any equity security (including convertible bonds) that is included in a main index of any securities-approved exchange in Singapore or any recognised group A exchange; and
 - (e) any unit in a collective investment scheme where –
 - (i) a price for the units is publicly quoted daily; and

^{226A} This shall exclude any CET1 capital instrument, AT1 capital instrument or Tier 2 capital instrument issued by the Reporting Bank which is held by the Reporting Bank or any of its banking group entities as collateral. Please also note section 29(3) of the Banking Act which prohibits a Reporting Bank from granting any credit facility against the security of its own shares.

[MAS Notice 637 (Amendment) 2014]

^{226B} This shall not include any structured deposits. Structured deposit has the same meaning as in Regulation 2 of the Financial Advisers (Structured Deposits – Prescribed Investment Product and Exemption) Regulations 2005.

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

²²⁷ Cash-funded credit-linked notes issued by a Reporting Bank against exposures in the banking book which fulfill the criteria for eligible credit derivatives shall be treated as cash collateralised transactions.

²²⁸ When cash on deposit, certificates of deposit or other similar instruments issued by the lending Reporting Bank are held as collateral at a third-party banking institution in a non-custodial arrangement and are pledged or assigned to the lending Reporting Bank, the Reporting Bank shall apply the risk weight of the third-party banking institution to the exposure covered by such collateral (after any necessary haircuts for currency risk). This is subject to the pledge or assignment being unconditional and irrevocable.

^{228A} This includes any structured note.

- (ii) the collective investment scheme is limited to investing in the instruments listed in this paragraph.²²⁹

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

2.2A Resecuritisations, irrespective of any credit ratings, are not eligible financial collateral. This prohibition applies whether the Reporting Bank is using the supervisory haircuts method, the own estimates of haircuts method, the repo VaR method or the internal model method.

2.3 For a Reporting Bank using the FC(CA), eligible financial collateral comprises^{226A} –

- (a) any instrument listed in paragraph 2.2 above;
- (b) any equity security (including convertible bonds) that is listed on any ~~securities-approved~~ exchange in Singapore or any recognised group A exchange; and
- (c) any unit in a collective investment scheme where a price for the units is publicly quoted daily and the collective investment scheme is limited to investing in instruments listed in paragraph 2.2 and in this paragraph.²³⁰

²²⁹ The use or potential use by a collective investment scheme of derivative instruments solely to hedge investments listed in paragraph 2.2 shall not prevent units in that collective investment scheme from being recognised as eligible financial collateral for a Reporting Bank using FC(SA).

²³⁰ The use or potential use by a collective investment scheme of derivative instruments solely to hedge investments listed in paragraph 2.3 shall not prevent units in that collective investment scheme from being recognised as eligible financial collateral for a Reporting Bank using FC(CA).

METHODS AND HAIRCUTS FOR RECOGNISING COLLATERAL

Amendments to Section 2

Section 2: Standard Supervisory Haircuts

2.1 The standard supervisory haircuts, H_E , H_C and H_S (assuming daily remargining and daily revaluation (i.e. mark-to-market) and a ten-business day holding period), are as follows:

Table 7J-1 - Standard Supervisory Haircuts

Eligible Financial Collateral		Standard Supervisory Haircuts		
Issue Rating for Debt Securities	Residual Maturity	Central Governments or Central Banks	Other Issuers	Securitisation Exposures
Any debt security with a credit quality grade of "1" or short-term credit quality grade of "I"	≤ 1 year	0.005	0.01	0.02
	> 1 year, ≤ 5 years	0.02	0.04	0.08
	> 5 years	0.04	0.08	0.16
Any debt security with a credit quality grade of "2" and "3" or short-term credit quality grade of "II" and "III"	≤ 1 year	0.01	0.02	0.04
	> 1 year, ≤ 5 years	0.03	0.06	0.12
	> 5 years	0.06	0.12	0.24
Any debt security with a credit quality grade of "4"	All	0.15	NA	NA
Gold		0.15		
Any equity (including a convertible bond) in a main index of a securities <u>an approved</u> exchange in Singapore or a recognised group A exchange		0.15		
Any other equity (including a convertible bond) listed on a securities <u>an approved</u> exchange in Singapore or a recognised group A exchange		0.25		
Any unit in a collective investment scheme		0.25 or highest haircut applicable to any security in which the fund can invest		
Cash in the same currency as the underlying exposure		0		
Instruments in the trading book other than those listed above (for pre-settlement counterparty exposures arising from repo-style transactions, i.e. repo, reverse repo, securities lending or		0.25		

Eligible Financial Collateral	Standard Supervisory Haircuts
securities borrowing transactions, included in the trading book)	

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

2.2 Notwithstanding paragraph 2.1 above, the standard supervisory haircut, H_E , for transactions in which a Reporting Bank lends instruments that do not qualify as eligible financial collateral (e.g. corporate debt securities with a credit quality of “4” or worse) is 0.25.

2.3 The standard supervisory haircut, H_{FX} , for currency mismatch where exposure and collateral are denominated in different currencies based on a ten-business day holding period and daily revaluation is 0.08.

2.4 Where the minimum holding period, frequency of remargining or revaluation assumptions set out in paragraph 2.1 differ from those of the Reporting Bank, the Reporting Bank shall adjust H_E , H_C , H_{FX} and H_S using the formulae in Section 4 of this Annex.

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

Amendments to Part VIII

PART VIII: MARKET RISK

Annex 8C

APPLICABLE RISK CHARGES OR MATCHING FACTORS FOR CALCULATION OF SPECIFIC RISK AND GENERAL MARKET RISK CAPITAL REQUIREMENTS UNDER THE SA(MR)

Amendments to Footnote 553

Table 8C-1 – Specific Risk Capital Requirement - Specific Risk Charges for Positions other than Securitisation Exposures

Category	Credit Quality Grade as set out in Table 7R-1	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, 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.

[MAS Notice 637 (Amendment No. 2) 2017]

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 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;
(c) any security which has a credit quality grade of "3" or better as set out in Table 7R-1, from external credit assessments by at least two recognised ECAIs; and

Category	Credit Quality Grade as set out in Table 7R-1	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%

[MAS Notice 637 (Amendment No. 2) 2017]

(d) subject to supervisory monitoring, any security which has a credit quality grade of "3" or better as set out in Table 7R-1.

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 and the issuer has securities listed on ~~a securities-any~~ approved exchange in Singapore or ~~a-any~~ recognised group A exchange.

[MAS Notice 637 (Amendment No. 2) 2017]

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.