

CONSULTATION PAPER

P007 - 2012
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Proposed Revisions to the Regulatory Capital Framework for Holders of Capital Markets Services Licences

MAS

Monetary Authority of Singapore

PREFACE

MAS has reviewed the current regulatory capital framework for capital markets services licensees (“CMSLs”), which is contained in the Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licences) Regulations (“SFR(FMR)”). This consultation paper sets out the proposed changes arising from the review, which seek to align the regulatory capital framework across CMSLs and enhance the risk-based capital (“RBC”) framework.

MAS invites holders of Capital Markets Services Licences and other interested parties to provide their views and comments on the proposals made in this consultation paper, and the draft amendments to the SFR(FMR) and draft MAS Notice SFA 04 - NXX appended at Annexes 2 and 3, respectively¹. Electronic submission is encouraged. Please submit your written comments by 3 May 2012 to:

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Please note that all submissions received may be made public unless confidentiality is specifically requested for the whole or part of the submission.

¹ A mapping of the rules in the current SFR(FMR) which will be migrated to the draft MAS Notice SFA 04 - NXX, and the proposed changes, are set out in Annex 1.

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1 ALIGNMENT OF THE REGULATORY CAPITAL FRAMEWORK

Application of the RBC Framework

1.1 There are currently three categories of CMSLs, each subject to different capital requirements. CMSLs licensed for the regulated activities of dealing in securities and/or trading in futures contracts, which are members of an approved exchange and/or designated clearing house, are required to comply with a comprehensive RBC framework. This RBC framework requires CMSLs to maintain sufficient financial resources to meet the total risk requirement, which comprises counterparty, position, operational, large exposure, and underwriting risk requirements. Other CMSLs are either subject to an adjusted net capital (“ANC”) framework or a simplified RBC framework.

1.2 The ANC and simplified RBC frameworks are less risk sensitive and narrower in their risk coverage than the RBC framework. Hence, **MAS proposes to expand the application of the RBC framework to all CMSLs²**. This will ensure that the level of financial resources held by CMSLs is commensurate with their activities and risks, and foster a level playing field for CMSLs engaged in similar activities³.

1.3 CMSLs that are not licensed to carry out securities dealing, futures trading, leveraged foreign exchange trading, or securities financing activities do not ordinarily need to take on counterparty exposures or market positions as part of their licensed activities. For such CMSLs, MAS recognises that the costs of implementing the full RBC framework may not be proportionate to their lower levels of counterparty or position risks.

Adjusted Assets Threshold

1.4 Hence, **MAS proposes to require a CMSL licensed only to carry out the regulated activities of fund management, REIT management, advising on corporate finance, or providing custodial services for securities (or a combination of such activities) to compute risk**

² For the purpose of this consultation paper, references to “all CMSLs” include CMSLs licensed to carry out dealing in securities, trading in futures contracts, leveraged foreign exchange trading, advising on corporate finance, fund management, real estate investment trust (“REIT”) management, securities financing, and/or providing custodial services for securities.

³ The risk coverage and definition of net capital/financial resources under the ANC framework and simplified RBC framework differs from the risk coverage and definition of financial resources under the RBC framework. The expansion of the application of the RBC framework will harmonise both the risk coverage and definition of financial resources across CMSLs, subject to the proposals set out in paragraphs 1.4 and 2.6.

requirements for its counterparty exposures or market positions, only if its average *adjusted assets* in each quarter of a year⁴ exceeds the lower of –

(a) 10 times its minimum base capital requirement, as set out in the First Schedule of the SFR(FMR); or

(b) five times its total positive financial resources,

where *adjusted assets* is equal to the sum of on-balance sheet assets and off-balance sheet amounts, less –

(a) assets deducted from financial resources;

(b) the CMSL's own deposits with banks licensed under the Banking Act which are of credit quality grade 1 (AA-/Aa3 and above); and

(c) cash balances.

1.5 The adjusted assets measure is an estimate of the amount of counterparty exposures and market positions of a CMSL, for which capital is required. The adjusted assets threshold is set relative to the minimum base capital requirement and the financial resources position of the CSML, so that a certain level of capital will be maintained for such assets held by a CMSL that falls below the threshold and is not required to compute risk requirements for its counterparty positions or its market exposures.

1.6 Table 1 of Annex 1 provides an overview of the proposed application of the RBC framework across CMSLs. Details on the application of the adjusted assets threshold are set out in Part IV of the draft MAS Notice SFA 04 - NXX, appended at Annex 3.

Question 1: MAS seeks views on the proposed application of the RBC framework across CMSLs and the adjusted assets threshold.

⁴ This is to be averaged based on the adjusted assets of the CMSL as at the end of each week in the quarter.

2 FINANCIAL RESOURCES

2.1 Financial resources⁵ under the RBC framework comprise base capital and other forms of capital, less items required to be deducted from financial resources.

Components of Financial Resources

2.2 Capital instruments currently recognised within base capital are ordinary share capital, and irredeemable and non-cumulative preference share capital⁶. Capital instruments currently recognised as other forms of capital are irredeemable and cumulative preference share capital, redeemable preference share capital, and qualifying subordinated loans (“QSLs”)⁷. Qualifying letters of credit (“QLCs”) are also currently allowed to be used to meet up to 50% of the total risk requirement. There are no limits applied to the use of irredeemable and cumulative preference share capital under the current RBC framework. An aggregate limit of 200% of base capital currently applies to the use of redeemable preference share capital and QSLs. This 200% limit may currently be exceeded on a temporary basis, for not more than 30 days in a year, up to a maximum aggregate limit of 300% of base capital.

2.3 **The following changes are proposed to strengthen the quality of financial resources, under the RBC framework for all CMSLs –**

- (a) introduce criteria for the recognition of irredeemable and non-cumulative preference share capital within base capital;**

- (b) subject irredeemable and cumulative preference share capital and redeemable preference share capital recognised as other forms of capital to an aggregate limit of 100% of base capital. QSLs will only be eligible as financial resources to meet risk requirements on a temporary basis. Where a CMSL exceeds this 100% aggregate limit, a CMSL may include the excess irredeemable and cumulative preference share capital and redeemable preference share capital, and QSLs, in its financial resources to meet its total risk requirement for a temporary period, if –**

⁵ The proposals in paragraphs 2.3(c), 2.5 and 2.6 also apply to foreign companies that maintain adjusted net head office funds to meet their total risk requirements.

⁶ Base capital also includes reserve funds and retained earnings.

⁷ Other forms of capital also include revaluation reserves, other reserves, interim profits, and general provisions.

- (i) **the sum of the excess irredeemable and cumulative preference share capital and redeemable preference share capital, and QSLs, does not exceed 100% of base capital; and**
- (ii) **each temporary period in which the inclusion is made, and the aggregate of all the temporary periods in each calendar year in which the inclusion is made, do not exceed 30 days; and**

(c) remove the use of QLCs to meet total risk requirement.

Deductions from Financial Resources

2.4 The current RBC framework requires assets not convertible to cash within 30 days, non-current assets, unsecured amounts due from directors and connected persons, unsecured amounts owed by a related company, unsecured loans, intangible assets, charged assets, and future income tax benefits⁸ to be deducted from financial resources. These deductions from financial resources seek to address liquidity risks, as well as risks of contagion and double-gearing of capital arising from intra-group exposures.

2.5 CMSLs' investments in subsidiaries and associates are currently deducted from financial resources as either non-current assets or assets not convertible to cash within 30 days. **For greater clarity, MAS proposes to separately specify capital investments in associates or subsidiaries as items that are required to be deducted from financial resources.**

2.6 MAS has also considered the applicability of these deductions from financial resources across CMSLs. In consideration of the differences in liquidity risk profiles and business models of CMSLs licensed only to carry out fund management or REIT management, **MAS proposes to require CMSLs licensed only to carry out fund management or REIT management to compute counterparty or position risk requirements for their non-current assets, assets not convertible to cash within 30 days, and receivables from related companies that are due to be repaid within 90 days, instead of deducting such items from financial resources. To account for the lower liquidity and**

⁸ Non-qualifying deposits and contingent liabilities are currently deducted from financial resources. The proposed changes to the treatment of non-qualifying deposits and contingent liabilities, as set out in paragraphs 3.4 and 3.5 of this consultation respectively, will subject such items to the counterparty risk requirement instead.

loss absorbency of fixed assets, MAS proposes to apply a risk factor of 50% to compute the position risk requirement of such assets. All other deductions from financial resources under the RBC framework, including capital investments in subsidiaries and associates, will apply to CMSLs licensed only to carry out fund management or REIT management.

2.7 Table 2 of Annex 1 provides an overview of the proposed changes to the financial resources under the RBC framework. The revised list of components of financial resources are set out in Regulation 2A of the amendments to the SFR(FMR), appended at Annex 2. The revised list of deductions from financial resources is set out in Part III of the draft MAS Notice SFA 04 - NXX, appended at Annex 3.

Question 2: MAS seeks views on the proposed changes to financial resources under the RBC framework.

3 COUNTERPARTY RISK REQUIREMENT

3.1 The counterparty risk requirement addresses CMSLs' potential losses from the default of counterparties. The proposed changes seek to increase risk sensitivity, and update the methods for computing counterparty exposures and the counterparty risk requirement.

Counterparty Risk Weights

3.2 The current counterparty risk weights are prescribed based on counterparty types. To enhance the risk sensitivity of the counterparty risk requirement, **MAS proposes to revise and expand the range of counterparty risk weights to take into account the creditworthiness of counterparties.** Conditions will be introduced to govern the use of credit ratings for the assignment of counterparty risk weights. The proposed changes to the counterparty risk weights include the introduction of a 20%⁹ risk weight for cash-in-transit items¹⁰ where the aggregated exposures to a counterparty arising from such items exceed \$20,000, to account for the short-term credit risk of such items.

Over-The-Counter ("OTC") Derivative Contracts

3.3 **To update and enhance the treatment of OTC derivative contracts, MAS proposes to –**

(a) update the credit exposure factors applied in computing the counterparty risk requirement for OTC derivative contracts;

(b) require leveraged foreign exchange transactions to be treated as OTC derivative contracts. Leveraged foreign exchange transactions are currently grouped together with derivative contracts that are traded on an exchange or novated to a clearing facility where the counterparty risk requirement is computed as a percentage of maintenance margin levels. Leveraged foreign exchange transactions are OTC derivative transactions, and the counterparty risk requirement for OTC derivative contracts will constitute a more risk sensitive approach; and

⁹ The application of a 20% counterparty risk weight corresponds to the maintenance of financial resources to meet losses of up to 1.6% of the value of such cash-in-transit items.

¹⁰ This includes cheques, drafts and other items drawn on other banking institutions that are either payable immediately upon presentation or that are in the process of collection.

(c) introduce the credit valuation adjustment risk of OTC derivative contracts within the counterparty risk requirement.

This addresses CMSLs' risk of mark-to-market losses on their OTC derivative transactions arising from changes in the creditworthiness of counterparties.

Treatment of Deposits

3.4 Currently, deposits are classified as either qualifying or non-qualifying. Non-qualifying deposits are deducted from financial resources as illiquidity adjustments while qualifying deposits which meet specific criteria are exempted from the counterparty risk requirement. **MAS proposes to subject all deposits (except those with exchanges, clearing houses and their members¹¹, as set out in paragraph 5.2.36 of Part V of the draft MAS Notice SFA 04 - NXX, appended at Annex 3) to the counterparty risk requirement.** Such treatment will take into account the varying levels of counterparty risk arising from deposits with different third parties. Non-qualifying deposits will no longer be required to be deducted from financial resources. The application of the revised counterparty risk weights to deposits will increase the risk sensitivity of the RBC framework.

Contingent Liabilities

3.5 Contingent liabilities are currently deducted from financial resources. To better distinguish between different forms of contingent liabilities, **MAS proposes to treat contingent liabilities as off-balance sheet commitments which require computation of the counterparty risk requirement.** The revised approach will take into account the likely occurrence of such off-balance sheet commitments and the level of counterparty risk through the application of the appropriate credit conversion factors and counterparty risk weights to compute the counterparty risk requirement.

Interest Payments Owed to CMSLs

3.6 Currently, the counterparty risk requirement for interest charged on amounts owed by counterparties does not take into account the differences in creditworthiness of counterparties. **MAS proposes to subject such interest payments owed to the same treatment as other forms of counterparty exposures.** The appropriate counterparty risk weights will be applied to the interest payments owed to CMSLs to compute the counterparty risk requirement.

¹¹ MAS will be separately reviewing the counterparty risk requirement for exposures to exchanges, clearing houses and their members to take into account ongoing global regulatory developments.

Conditions for Netting and Recognition of Collateral

3.7 **MAS proposes to update and refine the conditions for netting of counterparty exposures arising from OTC derivative and securities financing transactions and the recognition of collateral for the reduction of counterparty exposures applied in computing the counterparty risk requirement.** This is to ensure that the counterparty risk requirement is computed based on appropriate net exposure values. The updated netting conditions will encompass a more comprehensive set of requirements with regards to legal opinions, systems and controls, and will take into account the practices of international industry associations, such as the International Swaps and Derivatives Association, in updating legal opinions for industry standard netting agreements.

3.8 Table 3 of Annex 1 provides an overview of the proposed changes to the counterparty risk requirement. The revised counterparty risk requirement is set out in Part V of the draft MAS Notice SFA 04 - NXX, appended at Annex 3.

Question 3: MAS seeks views on the proposed changes to the counterparty risk requirement under the RBC framework.

4 POSITION RISK REQUIREMENT

4.1 The position risk requirement addresses CMSLs' potential losses arising from their proprietary positions. **The following changes are proposed to update and refine the position risk requirement –**

- (a) update of the risk factors for computing equity, debt and commodity position risk requirements;**
- (b) enhancement of the provisions for the derivation of notional positions for equity, debt, commodity, and foreign exchange derivatives;**
- (c) update of the conditions for the recognition of netting for computing equity, debt, commodity, and foreign exchange position risk requirements, including the treatment of debt positions hedged by credit derivatives;**
- (d) update of computation methods for commodity position risk requirement; and**
- (e) specification of treatment for positions in funds and non-financial assets.**

4.2 Table 4 of Annex 1 provides an overview of the proposed changes to the position risk requirement. The revised position risk requirement is set out in Part VI of the draft MAS Notice SFA 04 - NXX, appended at Annex 3.

Question 4: MAS seeks views on the proposed changes to the position risk requirement under the RBC framework.

5 OPERATIONAL RISK REQUIREMENT

5.1 The ANC framework does not address operational risks, while the current operational risk requirement under the RBC framework and the simplified RBC framework differ significantly. The operational risk requirement under the current RBC framework is computed as a percentage of the other risk components, while the operational risk requirement under the simplified RBC framework is computed as a percentage of the latest annual revenue of the CMSL.

5.2 The operational risk requirement under the current RBC framework may not be proportionate to the scale of CMSLs' activities, as CMSLs may face significant operational risks from their fee-based or fund management activities while having low levels of counterparty and position risks. MAS had previously reviewed the operational risk requirement for licensed fund management companies, and proposed a revised operational risk requirement that is more sensitive to the scale of CMSLs' activities, while addressing feedback from the industry on the volatility of computing the operational risk requirement using a gross income measure¹². **MAS proposes to also apply this revised operational risk requirement to all other CMSLs, to be computed as –**

- (a) 10% of the three-year average annual gross income;**
- (b) net of staff bonuses, commissions and interest expenses; and**
- (c) subject to a floor requirement of the higher of:**
 - (i) 5% of the three-year average annual gross income (before the netting of staff bonuses, commissions and interest expenses); or**
 - (ii) S\$100,000.**

5.3 The revised operational risk requirement is set out in Part VII of the draft MAS Notice SFA 04 - NXX, appended at Annex 3.

¹² The proposed changes to the operational risk requirement for fund management companies have been set out in MAS' Consultation Paper on Review of the Regulatory Regime for Fund Management Companies and Exempt Financial Intermediaries (issued on 27 April 2010), and MAS' response to feedback received on the consultation paper (issued on 28 September 2010).

Question 5: MAS seeks views on the proposed changes to the operational risk requirement under the RBC framework.

6 FIRM-SPECIFIC CAPITAL REQUIREMENT FOR OTHER RISKS

6.1 MAS proposes to include powers for MAS to impose an additional capital requirement to address firm-specific risks, including risks arising from a CMSL's activities that are not fully addressed under its total risk requirement. The relevant provisions are set out in Regulation 2C of the amendments to the SFR(FMR), appended at Annex 2, and Part IV of the draft MAS Notice SFA 04 - NXX, appended at Annex 3.

7 TRANSITIONAL PERIOD

7.1 MAS proposes to provide existing CMSLs with a transitional period of six months from the date of issuance of the amendments to the SFR(FMR) and draft MAS Notice SFA 04 - NXX to comply with the revised regulatory capital framework.

Question 6: MAS seeks views on the proposed transitional period.

Annex 1

**OVERVIEW OF PROPOSED REVISIONS TO THE REGULATORY CAPITAL
FRAMEWORK FOR CMSLs**

Table 1: Application of RBC Framework across CMSLs

Area	Current SFR(FMR)	Amendments to the SFR(FMR)	Draft MAS Notice SFA 04 - NXX
Application of Total Risk Requirement under the RBC Framework			
<p>Total risk requirement to be calculated as the sum of counterparty, position, operational, large exposure, underwriting and firm-specific risk requirements for all CMSLs, except for –</p> <ul style="list-style-type: none"> • CMSLs only carrying out fund management, real estate investment trust management, advising on corporate finance or providing custodial services for securities (or a combination of such activities), with adjusted assets below specified thresholds, for which the total risk requirement is to be calculated as the sum of operational and firm-specific risk requirements. 	Paragraph 1 of the Third Schedule	-	Part IV
Application of Financial Resources under the RBC Framework			
<p>Definition of financial resources under the RBC framework to be applied to all CMSLs, except for adjustments to deductions from financial resources for CMSLs only carrying out fund management or real estate investment trust management, as set out in Table 2 of this Annex.</p>	Regulation 2 and Second Schedule	Regulation 2A	Part III

Table 2: Proposed Changes to Financial Resources under the RBC Framework

Area	Current SFR(FMR)	Amendments to the SFR(FMR)	Draft MAS Notice SFA 04 - NXX
Financial Resources	Regulation 2 and Second Schedule	Regulation 2 and 2A	Part III
Proposed Changes – Components of Financial Resources			
Introduce criteria for the recognition of irredeemable and non-cumulative preference share capital within base capital.	-	Regulation 2	-
Subject irredeemable cumulative preference share capital and redeemable preference share capital recognised as financial resources to an aggregate limit of 100% of base capital. Only allow irredeemable and cumulative preference share capital and redeemable preference share capital in excess of 100% of base capital and all QSLs to be used to meet total risk requirements on a temporary basis, for not more than 30 days in a year, and subject to an aggregate limit of 100% of base capital.	Paragraph 1 of the Second Schedule	Regulation 2A	-
Remove requirement for amortisation of QSLs over the last two years to maturity.	Paragraph 4(2) of the Second Schedule	-	-
Remove the use of QLCs to meet CMSLs' total risk requirement.	Regulations 6(2) and 7(2), paragraph 3 of the Second Schedule	-	-
Proposed Changes – Deductions from Financial Resources			
Separately specify capital investments in associates or subsidiaries as items that are required to be deducted from financial resources. For CMSLs only carrying out fund management or real estate investment trust management, subject non-current assets, assets not convertible to cash within 30	Paragraph 1(4) of the Second Schedule	-	Part III

Area	Current SFR(FMR)	Amendments to the SFR(FMR)	Draft MAS Notice SFA 04 - NXX
<p>days, and receivables from related companies that are due to be repaid within 90 days, to counterparty or position risk requirements, instead of deducting such items from financial resources.</p> <p>Apply a risk factor of 50% to compute the position risk requirement of fixed assets.</p>			<p>Paragraph 6.2.86 of Part VI (for application of 50% risk factor to fixed assets)</p>

Table 3: Proposed Changes to Counterparty Risk Requirement

Area	Current SFR(FMR)	Draft MAS Notice SFA 04 - NXX
Counterparty Risk Requirement	Paragraph 3 of the Third Schedule	Part V
Proposed Changes		
<u>Counterparty risk weights</u> Revise and expand counterparty risk weights.	Table 1 of the Fourth Schedule	Paragraph 5.1.2 Annex 5A and 5B
<u>OTC derivative contracts</u> Update credit exposure factors for computing the counterparty risk requirement for OTC derivative contracts. Treat leveraged foreign exchange transactions as OTC derivative contracts instead of marginable products for the purposes of computing the counterparty risk requirement. Introduce the credit valuation adjustment risk of OTC derivative contracts within the counterparty risk requirement.	Table 2 of the Fourth Schedule Paragraphs 3(32) to 3(38) of the Third Schedule -	Annex 5D Paragraphs 5.2.29 to 5.2.32 Paragraphs 5.2.33 to 5.2.35
<u>Treatment of deposits</u> Subject all deposits to the counterparty risk requirement (except those with exchanges, clearing houses and their members), with lower risk weights (compared to other forms of exposures to banks) for CMSLs' own monies deposited with banks licensed under the Banking Act of credit quality grade 1 (AA-/Aa3 and above) and 2 (A-/A3 and above).	Paragraph 1(4) of the Second Schedule and paragraphs 3(46) to 3(51) of the Third Schedule	Paragraphs 5.2.36 to 5.2.38, 5.2.45 and 5.2.46 Annex 5B
<u>Contingent liabilities</u> Treat contingent liabilities as off-balance sheet commitments, for which the counterparty risk requirement is to be calculated by applying the appropriate credit conversion factors and counterparty risk weights to the notional value of the off-balance sheet commitments.	Paragraph 1(4) of the Second Schedule	Paragraphs 5.2.43 and 5.2.44 Annex 5E
<u>Interest payments</u> Subject interest payments owed by counterparties to the same treatment as other forms of counterparty exposures.	Paragraphs 3(52) and 3(53) of the Third Schedule	Paragraphs 5.2.39 and 5.2.40
<u>Netting conditions</u> Update netting conditions to encompass a more	Paragraph 3(5) of	Annex 5F

Area	Current SFR(FMR)	Draft MAS Notice SFA 04 - NXX
<p>extensive set of requirements with regards to legal opinions, systems and controls.</p> <p>Allow CMSLs' legal opinions on netting agreements to be updated only as necessary instead of on an annual basis, for standard netting agreements by the International Swaps and Derivatives Association, the Securities Industry and Financial Markets Association, the International Capital Market Association and the International Securities Lending Association, where the netting agreement is assessed by the CMSL to meet the revised netting conditions and is updated on an annual basis by the respective associations.</p>	<p>the Third Schedule</p>	
<p><u>Collateral</u> Introduce conditions for the recognition of collateral.</p> <p>Update treatment of collateral for repurchase, reverse repurchase, or securities borrowing and lending agreements and similar agreements, and the table of acceptable collateral.</p>	<p>-</p> <p>Paragraphs 3(29) and 3(30) of the Third Schedule and Table 17 of the Fourth Schedule</p>	<p>Annex 5G</p> <p>Paragraphs 5.2.18 and 5.2.19, Annex 5H</p>

Table 4: Proposed Changes to Position Risk Requirement

Area	Current SFR(FMR)	Draft MAS Notice SFA 04 - NXX
Position Risk Requirement	Paragraph 4 of the Third Schedule	Part VI
Proposed Changes		
<u>Equity position risk requirement</u> Revise standard method and building block position risk factors.	Table 5 and 7 of the Fourth Schedule	Table 6-1 and Table 6-2
<u>Debt position risk requirement</u> Revise specific risk factors for the building block method. Introduce provisions for the treatment of debt positions hedged by credit derivatives.	Table 9 of the Fourth Schedule -	Table 6D-2 of Annex 6D Paragraph 6.2.36(a) and paragraph 2.4 of Annex 6B
<u>Commodity position risk requirement</u> Reduce the risk factor applied to net commodity positions from 20% to 15%. Include the maturity ladder method for computation of commodity position risk requirement. Introduce interest rate add-on requirement for commodity derivatives.	Paragraph 4(70) of the Third Schedule - -	Paragraphs 6.2.61 and 6.2.71 Paragraph 6.2.62 Paragraphs 6.2.74 to 6.2.76
<u>Derivation of notional positions for derivatives</u> Enhance provisions for the derivation of notional positions for equity, debt, commodity and foreign exchange derivatives.	Paragraphs 4(14) to 4(15), 4(43) to 4(44), 4(69), and 4(78) to 4(79) of the Third Schedule	Annex 6A
<u>Netting</u> Update recognition of netting for computing equity, debt, commodity, and foreign exchange position risk requirements, including the treatment of debt positions hedged by credit derivatives.	Paragraph 4(9) of the Third Schedule	Annex 6B
<u>Others</u> Require the position risk requirement for a position taken in a fund, other than an equity position in a collective investment scheme, to be calculated based on the highest risk factor amongst the constituents of the fund, or the risk factors applicable to each of the	-	Paragraph 6.1.7

Area	Current SFR(FMR)	Draft MAS Notice SFA 04 - NXX
constituents of the fund. Subject positions taken in non-financial assets that are not deducted from financial resources to the same treatment as positions taken in non-standard financial instruments.	Paragraph 4(7) of the Third Schedule	Paragraph 6.2.87

**SECURITIES AND FUTURES
(FINANCIAL AND MARGIN REQUIREMENTS FOR
HOLDERS OF CAPITAL MARKETS SERVICES
LICENCES) (AMENDMENT NO. 2) REGULATIONS
2012**

Disclaimer: This version of the Regulations is in draft form and is subject to change.

No. S 000

**SECURITIES AND FUTURES ACT
(CHAPTER 289)**

**SECURITIES AND FUTURES
(FINANCIAL AND MARGIN REQUIREMENTS FOR
HOLDERS OF CAPITAL MARKETS SERVICES LICENCES)
(AMENDMENT NO. 2) REGULATIONS 2012**

In exercise of the powers conferred by sections 86(3), 95(1)(b), 100, 337 and 341 of the Securities and Futures Act, the Monetary Authority of Singapore hereby makes the following Regulations:

Citation and commencement

1. These Regulations may be cited as the Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licences) (Amendment No. 2) Regulations 2012 and shall come into operation on 2012.

Amendment of regulation 2

2. Regulation 2 of the Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licences) Regulations (Rg 13) (referred to in these Regulations as the principal Regulations) is amended —

(a) by deleting the definition of “adjusted net head office funds” and substituting the following definition:

“adjusted net head office funds”, in relation to the holder of a licence, means its net head office funds after deducting the applicable items specified in —

(a) an MAS notice that applies to the holder;
and

(b) if a notice referred to in regulation 2C is given to the holder, that notice;”;

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- (b) by deleting the words “under paragraph 1 of the Second Schedule” in paragraphs (d) and (f) of the definition of “aggregate indebtedness”;
- (c) by deleting the words “as defined in paragraph 4 of the Second Schedule” in paragraph (e) of the definition of “aggregate indebtedness”;
- (d) by inserting, immediately before the word “irredeemable” in paragraph (a)(ii) of the definition of “base capital”, the word “paid-up”;
- (e) by deleting the definitions of “commodity”, “counterparty”, “counterparty risk weight” and “customer” and substituting the following definition:
- “customer” means a person —
- (a) on whose behalf the holder of a licence carries on or will carry on any regulated activity; or
- (b) with whom the holder of a licence enters or will enter into a transaction as principal —
- (i) for the sale or purchase of securities;
- (ii) for the sale or purchase of futures contracts; or
- (iii) in connection with leveraged foreign exchange trading;”;
- (f) by deleting the definitions of “derivative”, “equity security”, “financial resources” and “forward contract” and substituting the following definition:
- “financial resources” has the meaning given to that expression in regulation 2A;”;
- (g) by deleting the definitions of “government securities” and “guideline issued by the Authority” and substituting the following definition:
- “irredeemable and non-cumulative preference share capital” means preference share capital

consisting of preference shares that satisfy all of the following requirements:

- (a) the principal of the shares is perpetual;
- (b) the shares are not callable at the initiative of the issuer of the shares or the shareholders, and the principal of the shares is never repaid outside of liquidation of the issuer, except in the case of a repurchase or other manner of reduction of share capital that is initiated by the issuer and permitted under written law; and
- (c) the issuer has full discretion to cancel dividend payments, and —
 - (i) the cancellation of dividend payments is not an event of default of the issuer under any agreement;
 - (ii) the issuer has full access to cancelled dividend payments to meet its obligations as they fall due; and
 - (iii) the cancellation of dividend payments does not result in any restriction being imposed on the issuer under any agreement, except in relation to dividend payments to ordinary shareholders;”;
- (h) by deleting the definition of “investment grade”;
- (i) by deleting the definitions of “market index of a recognised group B exchange” and “money market debt securities” and substituting the following definition:
 - ““MAS notice” means a notice issued by the Authority under regulation 2B;”;
- (j) by deleting the definition of “physical commodity”;

(k) by deleting the definition of “qualifying letter of credit” and substituting the following definitions:

““qualifying letter of credit” means any legally enforceable and irrevocable letter of credit that is —

- (a) made in favour of the approved exchange or designated clearing house (as the case may be) of which the holder of the licence concerned is a member;
- (b) issued by a bank approved by, and in a form acceptable to, the approved exchange or designated clearing house; and
- (c) subject to such conditions or restrictions as the Authority, or the approved exchange or designated clearing house may impose on the holder,

but does not include any letter of credit provided by the holder to the approved exchange or designated clearing house to satisfy the business rules or other requirements of the approved exchange or designated clearing house;

“qualifying subordinated loan” means a subordinated loan of an amount equal to the principal of the subordinated loan made under a subordinated loan agreement to the holder of the licence concerned by a lender (referred to in this definition as the subordinated creditor) which complies with all of the following:

- (a) the subordinated loan has not less than 2 years to maturity at the time the loan is first drawn down;
- (b) the subordinated loan agreement is in a form that includes the following terms:

- (i) a term that the subordinated creditor shall not claim or receive from the holder, by way of set-off or in any other manner, any subordinated loan repayment until after every senior debt has been paid or unless the holder has obtained the prior written approval of the Authority;
- (ii) a term that claims of the subordinated creditor are fully subordinated to the claims of all senior creditors;
- (iii) an option for the holder to defer interest payment on the subordinated loan;
- (iv) a term that the subordinated loan shall automatically be converted into capital to provide a cushion for losses to creditors if an appropriate reconstruction of the capital of the holder which is acceptable to the Authority has not been undertaken;
- (v) a term that, in the event of any payment or distribution of assets of the holder, whether in cash, in kind or in securities (referred to in this definition as a distribution), upon any dissolution, winding-up, liquidation or reorganisation of the holder —
 - (A) the senior creditors shall first be entitled to receive payment in full of the senior debts before the subordinated creditor receives any payment in respect of the subordinated debt; and

- (B) any distribution to which the subordinated creditor would be entitled but for the provisions of the subordinated loan agreement shall be made by the liquidator, Official Assignee in bankruptcy or any other person making the distribution directly to the senior creditors rateably according to their senior debts until they have been paid in full (taking into account other distributions to the senior creditors);
 - (vi) a term that if, notwithstanding sub-paragraphs (i) to (v), any distribution is received by the subordinated creditor in respect of the subordinated debt, the distribution shall be paid over to the senior creditors for application rateably according to their senior debts until they have been paid in full (taking into account other distributions to the senior creditors) and, until such payment has been made in full, the distribution shall be held in trust for the senior creditors; and
 - (vii) such terms as may be specified in the business rules of an approved exchange or a designated clearing house of which the holder is a member;
- (c) the subordinated loan agreement does not contain any term which would enable the subordinated creditor to demand the early or

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- accelerated repayment of the subordinated loan;
- (d) the subordinated loan agreement is not subject to any cross-default or negative pledge; and
- (e) it meets such other criteria as may be specified in or imposed by —
- (i) an MAS notice applicable to the holder;
 - (ii) any notice given to the holder by the Authority; and
 - (iii) an approved exchange or a designated clearing house of which the holder is a member;”; and
- (l) by deleting the definitions of “Singapore Government securities” and “total risk requirement” and substituting the following definitions:
- “senior creditor”, in relation to a qualifying subordinated loan, means a creditor to whom a senior debt is owed;
- “senior debt”, in relation to a qualifying subordinated loan, means a debt of the holder of the licence concerned that is outstanding at any time during the period in which the qualifying subordinated loan is outstanding;
- “total risk requirement” means the amount required to address risks arising from the activities of the holder of a licence, being —
- (a) such amount as specified in or computed in accordance with an MAS notice that applies to the holder;
 - (b) if a notice referred to in regulation 2C is given to the holder to substitute the amount

referred to in paragraph (a) with another amount specified in or computed in accordance with that notice, the second-mentioned amount; or

- (c) if a notice referred to in regulation 2C is given to the holder to supplement the amount referred to in paragraph (a) with another amount specified in or computed in accordance with that notice, the aggregate of both those amounts.”.

New regulations 2A, 2B and 2C

3. The principal Regulations are amended by inserting, immediately after regulation 2, the following regulations:

“Financial resources

2A.—(1) In these Regulations, a reference to the financial resources of the holder of a licence is a reference to the sum of the following items in the latest available accounts of the holder, after deducting from those items such other items as may be specified in the MAS notice that applies to the holder and, if a notice referred to in regulation 2C is given to the holder, in that notice:

- (a) base capital;
- (b) paid-up irredeemable and cumulative preference share capital;
- (c) paid-up redeemable preference share capital;
- (d) revaluation reserves;
- (e) other reserves;
- (f) interim unappropriated profit; and
- (g) collective impairment allowances.

(2) Without prejudice to the definition of any of those items in regulation 2, the items in paragraph (1)(a) to (g) are those items in the latest available accounts of the holder that meet

such criteria as may be specified in the MAS notice that applies to the holder.

(3) If the sum of the items in paragraph (1)(b) and (c) is more than the item in paragraph (1)(a), the amount by which the sum of the items in paragraph (1)(b) and (c) exceeds the item in paragraph (1)(a) shall be disregarded in determining the financial resources of the holder for any purpose under these Regulations.

(4) Notwithstanding paragraphs (1) and (3), the total of the excess amount referred to in paragraph (3), and the total of the amounts of all qualifying subordinated loans of the holder that remain outstanding during a temporary period, may be included in the financial resources of the holder for that temporary period for any purpose under these Regulations, if (and only if) —

- (a) the sum of —
 - (i) the excess amount; and
 - (ii) the total of the amounts of all those qualifying subordinated loans,does not exceed the item in paragraph (1)(a);
- (b) each temporary period in which the inclusion is made, and the aggregate of all the temporary periods in each calendar year in which the inclusion is made, do not exceed 30 days; and
- (c) immediately after the inclusion, the holder notifies the Authority and the approved exchange or designated clearing house of which the holder is a member (if applicable) of that fact.

MAS notices

2B. The Authority may from time to time issue notices for the purposes of these Regulations, which shall be published on the Authority's Internet website at <http://www.mas.gov.sg> (under*).

Variation of adjusted net head office funds, financial resources or total risk requirement

2C. The Authority may, for the purpose of addressing the risks applicable to a particular holder of a licence, by notice in writing to the holder —

- (a) specify an amount of or a formula for computing the total risk requirement that is in substitution for or that supplements the amount specified in or computed in accordance with the MAS notice applicable to the holder;
- (b) specify items to be deducted from the items referred to in regulation 2A(1)(a) to (g) that are additional to those set out in the MAS notice applicable to the holder; or
- (c) specify items to be deducted from the adjusted net head office funds of the holder that are additional to those set out in the MAS notice applicable to the holder.”.

Amendment of Part III

4. Part III of the principal Regulations is amended —

- (a) by deleting the words “OR ADJUSTED NET CAPITAL” in the Part heading; and
- (b) by deleting the heading of Division 1.

Deletion and substitution of regulation 5

5. Regulation 5 of the principal Regulations is deleted and the following regulation substituted therefor:

“Holder of licence

5. In this Part, unless the context otherwise requires, a reference to the holder of a licence excludes one who only holds a licence to provide credit rating services.”.

Amendment of regulation 5A

6. Regulation 5A of the principal Regulations is amended —

- (a) by deleting the words “that is incorporated in Singapore,” in paragraph (1); and
- (b) by deleting the words “under paragraph 1 of the Second Schedule” in paragraph (2)(a).

Amendment of regulation 6

7. Regulation 6 of the principal Regulations is amended —

- (a) by deleting paragraph (2) and substituting the following paragraphs:

“(2) The holder of a licence shall compute its financial resources (if applicable) in accordance with regulation 2A and its total risk requirement in accordance with paragraph (2B), at such time and frequency as may be necessary for determining whether its financial resources falls below its total risk requirement.

(2A) The holder of a licence shall compute its adjusted net head office funds (if applicable) in accordance with the definition of “adjusted net head office funds” and its total risk requirement in accordance with paragraph (2B), at such time and frequency as may be necessary for determining whether its adjusted net head office funds falls below its total risk requirement.

(2B) The holder of a licence shall compute its total risk requirement in accordance with the MAS notice that applies to him, any notice referred to in regulation 2C given to the holder, or both (whichever is applicable).”;

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- (b) by deleting the words “paragraph (1)”, and substituting the words “paragraphs (1), (2), (2A) or (2B)” in paragraph (3) and (4); and
 - (c) by deleting the regulation heading and substituting the following regulation heading:

“Financial resources of holder of licence not to fall below total risk requirement”.

Amendment of regulation 7

8. Regulation 7 of the principal Regulations is amended —

- (a) by deleting paragraph (2) and substituting the following paragraph:

“(2) If the Authority is notified by the holder under paragraph (1) or becomes aware that the financial resources of the holder have fallen below 120% of its total risk requirement, the Authority may —

- (a) direct the holder to immediately do one or more of the following:
 - (i) cease any increase in securities financing, funds accepted for management and assets accepted for custody for any account carried by the holder;
 - (ii) transfer all or part of any customer’s margins, collateral, assets and accounts to one or more other holders of licences;
 - (iii) operate its business in such manner and on such conditions as the Authority may impose;
 - (iv) cease carrying on business in any or all of the regulated activities permitted under its licence until such time that the holder has demonstrated that its financial resources are not less than 120% of the total risk requirement of the holder, except that the

holder may continue trading for the purposes of liquidation only or if otherwise directed by the Authority; or

- (b) revoke the licence of the holder under section 95(2) of the Act.”;
- (b) by deleting the words “paragraph (3),” in paragraph (6) and substituting the words “paragraph (2)(a), (3)”;
- (c) by deleting the regulation heading and substituting the following regulation heading:

“Where financial resources of holder of licence fall below 120% of total risk requirement”.

Amendment of Division 2 of Part III

9. Part III of the principal Regulations is amended by deleting the heading of Division 2.

Deletion of regulations 8 to 14

10. Regulations 8 to 14 of the principal Regulations are deleted.

Deletion and substitution of regulation 15

11. Regulation 15 of the principal Regulations is deleted and the following regulation substituted therefor:

“Holder of licence

15. In this Part, unless the context otherwise requires, “holder of a licence” means a corporation which is one or more of the following:

- (a) the holder of a licence to deal in securities which is a member of a securities exchange, not including the holder of a licence —
 - (i) which does not carry any customer’s position, margin or account in its own books; and
 - (ii) which either —

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- (A) deals in securities only with accredited investors; or
 - (B) carries on the business of only soliciting or accepting orders for the purchase or sale of any securities from any customer;
- (b) the holder of a licence to trade in futures contracts which is a member of a futures exchange, not including the holder of a licence —
- (i) which does not carry any customer's position, margin or account in its own books; and
 - (ii) which either —
 - (A) trades in futures contracts only with accredited investors; or
 - (B) carries on the business of soliciting or accepting orders for the purchase or sale of any futures contract from any customer, and no other business;
- (c) the holder of a licence which is a member of a designated clearing house,
- whether or not the corporation is also permitted to carry on business in any other regulated activity.”.

Deletion of regulation 18

12. Regulation 18 of the principal Regulations is deleted.

Amendment of regulation 20

13. Regulation 20 of the principal Regulations is amended —
- (a) by inserting, immediately after the words “paid-up ordinary share capital”, the words “or paid-up irredeemable and non-cumulative preference share capital”; and
 - (b) by inserting, immediately after the words “paid-up ordinary share capital” in the regulation heading, the words “or paid

up irredeemable and non-cumulative preference share capital”.

Amendment of regulation 21

14. Regulation 21 of the principal Regulations is amended —

- (a) by deleting the words “redeem any redeemable preference share that is computed as part of the holder’s financial resources under paragraph 1(1) of the Second Schedule” in paragraph (2) and substituting the words “repay the principal of any preference share (other than any paid-up irredeemable and non-cumulative preference share capital) that is computed as part of the holder’s financial resources, through repurchase or redemption”;
- (b) by inserting, immediately after the words “date of” in paragraph (2)(a) and (b), the words “repurchase or”;
- (c) by deleting the words “and qualifying letters of credit” in paragraph (2)(b)(i); and
- (d) by inserting, immediately after the words “such a” in paragraph (2)(c) and (d), the words “repurchase or”.

Amendment of regulation 22

15. Regulation 22(2) of the principal Regulations is amended by deleting the words “and qualifying letters of credit” in subparagraph (b)(ii).

Amendment of regulation 23

16. Regulation 23 of the principal Regulations is amended by deleting the words “and qualifying letters of credit” in paragraph (a)(ii).

Amendment of regulation 24

17. Regulation 24 of the principal Regulations is amended —

- (a) by deleting the words “or average adjusted net capital (as the case may be)” in paragraph (3)(a), (b) and (c);

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- (b) by deleting the words “the Authority may specify in a guideline issued by the Authority” in paragraph (5) and substituting the words “may be specified in an MAS notice that applies to the holder or by a notice given to the holder by the Authority”;
 - (c) by deleting the words “a guideline issued by the Authority” in sub-paragraph (k) of the definition of “acceptable collateral” in paragraph (6) and substituting the words “an MAS notice applicable to the holder”; and
 - (d) by deleting the definitions of “average adjusted net capital” and “financial resources” and “total risk requirement” in paragraph (6).

Amendment of regulation 24B

18. Regulation 24B(2) of the principal Regulations is amended by deleting the words “or 20% of its average adjusted net capital within the meaning of regulation 24(6), as the case may be” in sub-paragraph (b).

Amendment of regulation 25

19. Regulation 25 of the principal Regulation is amended —

- (a) by deleting the words “(as the case may be)” in paragraph (1) and substituting the words “(if applicable)”;
- and
- (b) by deleting paragraphs (2) and (3).

Amendment of regulation 27

20. Regulation 27 of the principal Regulations is amended —

- (a) by inserting, immediately after the words “aggregate indebtedness” in paragraph (1)(b), the words “, where applicable,”;
- (b) by deleting paragraphs (2) and (3);
- (c) by deleting the words “, (2) or (3) shall, in preparing any statement referred to in any of those paragraph” in

paragraph (4) and substituting the words “shall, in preparing any statement referred to in that paragraph,”;

(d) by deleting “, (2), (3)” in paragraph (6);

(e) by inserting, at the end of paragraph (9)(b), the word “and”;
and

(f) by deleting sub-paragraphs (c), (d) and (e) of paragraph (9), the following sub-paragraph:

“(c) a statement relating to other information of the holder in Form .”.

Deletion of Part VIII

21. Part VIII of the principal Regulation is deleted.

Amendment of regulation 28A

22. Regulation 28A of the principal Regulation is amended —

(a) by deleting paragraph (a) and substituting the following paragraph:

“(a) regulation 4(1), (1A) or (2), 6(1), (2), (2A), (2B) or (3), 7(1), (2), (3) or (5)(a), 16(1) or (2), 17(1), (2) or (4)(a), 19(1), 20, 21(1) or (2), 22(1) or (2), 23, 24(1), (2) or (3), 24A(1) or (3), 25(1) or (4) or 26(2) or (3); or”;

(b) by inserting, immediately after “5A(1), ” in paragraph (b), the words “7(2)(a)”;

(c) by deleting “, 10(2)(a), 11(3)(a), 14(2)(a)” in paragraph (b).

Deletion of Second and Third Schedules

23. Second and Third Schedules to the principal Regulations are deleted.

Amendment of Fourth Schedule

24. Fourth Schedule to the principal Regulations is amended —

(a) by deleting Tables 1 and 2;

(b) by deleting the Table reference in Table 3 and substituting the following Table reference:

“Regulation 24(6)”;

(c) by deleting the words “the Third Schedule and Tables 1, 9 and 17 of this Schedule,” in the paragraph of Table 3;

(d) by deleting the words “the Authority may specify in a guideline issued by the Authority” in the paragraph of Table 3 and substituting the words “may be specified in an MAS notice”;

(e) by deleting the Table reference of Table 4 and substituting the following Table reference:

“Regulation 24”;

(f) by deleting the words “the Third Schedule, and Tables 1, 5, 6 and 7 of this Schedule” in the paragraph of Table 4 and substituting the words “regulation 24”;

(g) by deleting the words “the Authority may specify in a guideline issued by the Authority” in the paragraph of Table 4 and substituting the words “may be specified in an MAS notice”; and

(h) by deleting Tables 5 to 17.

Deletion of Fifth and Sixth Schedules

25. The Fifth and Sixth Schedules to the principal Regulations are deleted.

*[G.N. Nos. S 372/2005; S 78/2006; S 507/2006;
S 677/2006; S 445/2007; S 101/2008; S 375/2008;
S 77/2009; S 714/2010; S 19/2012]*

Made this day of 2012.

RAVI MENON,
Managing Director,
Monetary Authority of Singapore.

[; AG/LLRD/SL/289/2010/2 Vol. 1]

DRAFT NOTICE SFA 04-NXX

**FINANCIAL RESOURCES AND TOTAL RISK
REQUIREMENT FOR HOLDERS OF CAPITAL
MARKETS SERVICES LICENCES**

Disclaimer: This version of the Notice is in draft form and is subject to change.

PART I: INTRODUCTION

1.1.1 This Notice is issued pursuant to regulations 2B, 5 and 6 of the Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licences) Regulations and applies to all holders of a capital markets services licence, other than a holder of a capital markets services licence for only providing credit rating services.

1.1.2 Under regulation 5 and 6 of the Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licences) Regulations, a holder of a capital markets services licence other than a holder of a capital markets services licence for only providing credit rating services shall:

- (a) not permit its financial resources or adjusted net head office funds, whichever is applicable, to fall below its total risk requirement; and
- (b) shall notify the Authority if its financial resources or adjusted net head office funds fall below 120% of its total risk requirement.

1.1.3 This Notice establishes the methodology which a holder of a capital markets services licence other than a holder of a capital markets services licence for only providing credit rating services shall use for calculating its financial resources or adjusted net head office funds, whichever is applicable, and its total risk requirement. While this Notice provides a range of approaches for calculating the total risk requirement, a holder of a capital markets services licence other than a holder of a capital markets services licence for only providing credit rating services should adopt the approaches that are commensurate with the complexity and sophistication of its businesses and operations, and apply the approaches consistently.

1.1.4 This Notice shall take effect on x xxxx xxxx.

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 section 2 of the Securities and Futures Act (the "Act") and regulation 2 of the Securities and Futures (Financial and Margin Requirements for Holders of Capital Markets Services Licences) Regulations (the "Regulations"). In case of conflict between the Act and the Regulations, the Regulations shall prevail unless otherwise provided in the Regulations.

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

GLOSSARY

acceptable collateral	<p>in relation to a CMSL, means any collateral that —</p> <p>(a) is liquid and readily convertible into cash;</p> <p>(b) is in the possession or control of the CMSL;</p> <p>(c) is subject to a collateral agreement between the counterparty and the CMSL which is evidenced in writing, legally binding on them, irrevocable and enforceable against the counterparty, and which provides the CMSL with an unconditional right to apply the collateral, or to sell the collateral or otherwise convert the collateral into cash;</p> <p>(d) is not a security issued by the counterparty that gives rise to the counterparty exposure or by a related corporation of that counterparty; and</p> <p>(e) is not a security that is prohibited from serving as collateral by an approved exchange or a designated clearing house (as the case may be);</p>
Accounting Standards	has the same meaning as in section 4(1) of the Companies Act (Cap. 50);
associate	has the same meaning as “associate” under the Accounting Standards;
banking institution	<p>means –</p> <p>(a) any bank licensed under the Banking Act (Cap. 19); or</p> <p>(b) any entity which is approved, licensed, registered or otherwise regulated by a banking regulatory authority in a foreign jurisdiction to carry on banking business as defined in the Banking Act (Cap 19);</p>
banking regulatory authority	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 (Cap. 19);
business day	has the same meaning as in section 2 of the Banking Act (Cap 19);
capital	in relation to a CMSL, means all exposures of a capital nature,

investments	<p>including –</p> <p>(a) any ordinary share;</p> <p>(b) any preference share;</p> <p>(c) any instrument treated as regulatory capital in relation to any financial institution approved, licensed, registered or otherwise regulated by a regulatory authority;</p> <p>(d) any lending on non-commercial terms or which is not at arm's-length; and</p> <p>(e) any guarantee issued to third parties for the benefit of subsidiaries and major stake companies on non-commercial terms or which is not at arm's length;</p>
CCF	means credit conversion factor as set out in Annex 5E;
CFD	means a contract for differences;
charged asset	means an asset which is subject to a charge under which a third party has a right of retention or sale of the asset upon default of the CMSL;
CMSL	means any holder of a capital markets services licence, other than a holder of a capital markets services licence for only providing credit rating services;
commodity	<p>in relation to a derivative contract, means –</p> <p>(a) a financial instrument; or</p> <p>(b) gold, freight, any class of oil or any other physical commodity;</p>
counterparty	<p>in relation to a CMSL,</p> <p>(a) means any person who has a financial obligation to the CMSL (including a financial obligation to be performed at a specified future time), and includes any customer of the CMSL; and</p> <p>(b) for the purposes of Part VIII, includes –</p> <p>(i) where the counterparty is a natural person, any other individual whom the first-mentioned individual is able to control or influence;</p> <p>(ii) where the counterparty is a corporation, any other corporation or group of corporations which is or</p>

		<p>are deemed to be related to the first-mentioned corporation pursuant to section 6 of the Companies Act (Cap. 50); or</p> <p>(iii) a corporation 50% or more of the issued share capital of which is owned by any of the individuals mentioned in sub-paragraph (i), or the composition of the board of directors of which is controlled by those individuals; and for this purpose the composition of the board of directors of the corporation shall be deemed to be controlled by those individuals if they, by the exercise of some power exercisable by them without the consent or concurrence of any other person, can appoint or remove all or a majority of the directors of that corporation;</p>
counterparty risk weight		in relation to a counterparty, means the percentage that applies to the relevant counterparty in accordance with Annex 5B;
counterparty risk requirement		means a counterparty risk requirement calculated in accordance with Part V;
credit derivative contract		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 equivalent amount		<p>in relation to an over-the-counter derivative contract or an exchange-traded derivative contract which is dependent on the issuer for performance, means —</p> <p>(a) if the current value of the contract is positive, the sum of the current market value of the contract and the potential credit exposure of the contract; or</p> <p>(b) if the current market value of the contract is negative, the potential credit exposure;</p>
customer		has the same meaning as in regulation 2 of the Regulations;
debit balance		has the same meaning as in regulation 24(6) of the Regulations;
derivative contract		includes any warrant, convertible security, forward contract, futures contract, swap, CFD and option;
equity		for the purposes of Part V, in relation to a customer's margin account, means the aggregate value of acceptable collateral (as determined in accordance with Annex 5H) bought and carried, or deposited as collateral, by a customer in the margin account;
equity security		includes any stock, share, depository receipt and unit in a

		collective investment scheme;
excluded issuer exposure		<p>in relation to Part VIII, means any exposure to —</p> <ul style="list-style-type: none"> (a) Singapore Government securities; (b) securities issued by a PSE in Singapore; (c) a futures contract, forward contract or other derivative contract, the value of which is based on the value of Singapore Government securities or securities issued by a PSE in Singapore; (d) a futures contract or forward contract on an interest rate that does not give rise to an exposure to an issuer; (e) a forward rate agreement; (f) an interest rate swap; (g) a currency swap; (h) an interest rate leg of an equity swap; and (i) such other exposure as the Authority may specify by notice in writing to the relevant CMSL concerned;
financial institution		<p>means an entity or a limited liability partnership the principal activity of which is to carry on business in one or more of the following activities:</p> <ul style="list-style-type: none"> (a) banking business; (b) insurance business; (c) dealing or trading in securities, exchange-traded derivative contracts or over-the-counter derivative contracts, 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;

	<p>(j) operating an exchange, trading system or market;</p> <p>(k) providing central counterparty services;</p> <p>(l) operating a payment system, securities depository, securities settlement system or trade repository;</p> <p>(m) providing financial advisory services;</p> <p>(n) insurance broking;</p> <p>(o) trust business;</p> <p>(p) money broking;</p> <p>(q) money-changing business;</p> <p>(r) remittance business;</p> <p>(s) lending;</p> <p>(t) factoring;</p> <p>(u) leasing;</p> <p>(v) provision of credit enhancements; or</p> <p>(w) securitisation;¹</p>
financial instrument	includes any currency, currency index, interest rate instrument, interest rate index, share, share index, stock, stock index, debenture, bond index, a group or groups of such financial instruments, and any right, option or derivative contract in respect of such financial instruments;
forward contract	means a contract the effect of which is that one party to the contract agrees to deliver a specified commodity, or a specified quantity of a specified commodity, to another party to the contract at a specified future time and at a specified price payable at that time, and includes an option on a forward contract but does not include a futures contract;
free financial resources	means the financial resources of the CMSL less the total risk requirement of the CMSL;
futures contract	has the same meaning as in regulation 2 of the Regulations;
government securities	means debt securities issued or proposed to be issued by any government of any country or territory;

¹ For avoidance of doubt, this includes any entity that is approved, licensed, registered or otherwise regulated by the Authority, or a foreign entity that carries out activities which if, it carried on business in the activities in Singapore, would have to be approved, licensed, registered or otherwise regulated by the Authority.

guideline	means a guideline or other document issued by the Authority under section 321(1) of the Act;
investment grade	means — (a) a credit rating set out in Table 5A-3 of Annex 5A issued by the corresponding credit rating agency in that Table or any better credit rating ² ; or (b) such credit rating issued by such credit rating agency as may be specified in a guideline issued by the Authority from time to time;
maintenance margin	means the amount of maintenance margin in respect of transactions in marginable products as specified by — (a) the approved exchange; (b) the designated clearing house; (c) the overseas exchange; or (d) the clearing facility appointed by the entity referred to in sub-paragraph (a) or (c), as the case may be;
margin account	for the purposes of Part V, in relation to a customer, means an account of the customer through which the CMSL extends or has extended securities financing to the customer;
margin deficiency	in relation to a counterparty's account that is subject to a margin call, means the amount required to bring the ledger balance of the counterparty's account, which shall be zero in the case of a counterparty's account with a negative equity, to meet the relevant maintenance margin for open futures contracts in the counterparty's account;
market index of a recognised exchange	means a broad-based index of shares listed on the recognised exchange;
residual maturity	in relation to a debt security in Part VI, means either — (a) the period remaining till the maturity of the security; or (b) in the case of a debt security with a floating rate coupon, the period remaining till the determination of the next coupon;
maturity mismatch	means a situation where the residual maturity of the credit risk

² Where an exposure has more than one external credit assessment and these map into different credit quality grades, paragraph 2 of Annex 5A shall apply.

	mitigant is less than the residual maturity of the underlying credit exposure;
negative equity	in relation to a counterparty's account that is subject to a margin call, means the amount required to restore the ledger balance of the counterparty's account (which includes adjustments to the account arising from unrealised gains or losses on open contracts, and margins deposited by the counterparty) to zero, but does not include the amount required to meet the relevant maintenance margin for open futures contracts in the counterparty's account;
overseas exchange	means a person operating a market outside Singapore which is regulated by a financial services regulatory authority of a country or territory other than Singapore;
physical commodity	means any goods, article or item other than cash, and includes any freight or energy products;
potential credit exposure	in relation to the credit equivalent amount of an over-the-counter derivative contract or for an exchange-traded derivative contract which is dependent on the issuer for performance, means the product of — (a) the nominal or notional principal underlying the contract ³ ; and (b) the relevant credit exposure factor set out in Annex 5D;
PSE or public sector entity	means — (a) a regional government or local authority that is able to exercise one of 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);
qualifying equity index	means an equity index set out in Annex 6C;
recognised ECAI	means an external credit assessment institution that is specified

³ In the event that the stated notional amount is leveraged or enhanced by the structure of the transaction, the CMSL should use the effective notional amount when determining the potential credit exposure.

	in Annex 5A;
recognised exchange	means an overseas exchange regulated by a financial services regulatory authority of a country or territory specified under Group A in Table 4 of the Fourth Schedule to the 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;
securities	has the same meaning as defined in section 2 of the Act;
Singapore Government securities	means securities issued or proposed to be issued by the Singapore Government, and includes — <ul style="list-style-type: none"> (a) any debenture, stock or bond issued or proposed to be issued by the Singapore Government; (b) any right or option in respect of any debenture, stock or bond referred to in sub-paragraph (a); (c) book-entry Singapore Government securities as defined in section 2 of the Development Loan (1987) Act (Cap. 81A) or section 2 of the Government Securities Act (Cap. 121A); and (d) book-entry Treasury Bills as defined in section 2 of the Local Treasury Bills Act (Cap. 167);
specified deposit	means — <ul style="list-style-type: none"> (a) a current account balance, saving account deposit or fixed deposit, including accrued interest, with — <ul style="list-style-type: none"> (i) a bank licensed under the Banking Act (Cap. 19); (ii) a merchant bank approved as a financial institution under the Monetary Authority of Singapore Act (Cap. 186); (iii) a finance company licensed under the Finance Companies Act (Cap. 108); or (iv) a bank outside Singapore which is approved, licensed, registered or otherwise regulated by a banking regulatory authority in a foreign jurisdiction to carry on banking business as defined in the Banking Act (Cap 19), and that has a credit rating of investment grade; or (b) a deposit with any of the following:

	<ul style="list-style-type: none"> (i) an approved exchange; (ii) a recognised exchange; (iii) a designated clearing house; (iv) a clearing facility appointed by a recognised exchange; (v) an entity which is a member of any entity referred to in sub-paragraphs (i) to (iv); or (vi) such other entity as the Authority may specify by notice in writing to the relevant CMSL concerned;
total risk requirement	has the meaning as set out in Part IV;

PART III: FINANCIAL RESOURCES/ADJUSTED NET HEAD OFFICE FUNDS

3.1.1 Financial resources or adjusted net head office funds, whichever is applicable,–

(a) in relation to a CMSL licensed only to carry out fund management or real estate investment trust management shall be less the sum of the following items in the latest accounts:

- (i) intangible assets;
- (ii) future income tax benefits;
- (iii) pre-paid expenses;
- (iv) charged assets, except to the extent that —
 - (A) the CMSL has not drawn down on the credit facility if the charge is created to secure a credit facility;
 - (B) a liability is incurred by the CMSL in respect of the charged asset for use in the CMSL's conduct of regulated activities; or
 - (C) the asset is provided as a collateral for a transaction for which the CMSL is required to calculate a counterparty risk requirement, as permitted by the Authority;
- (v) unsecured amounts due from directors of the CMSL and their connected persons;
- (vi) unsecured amounts owed by a related corporation, other than -
 - (A) an amount arising from any specified deposit or transaction in a regulated activity for which the CMSL has calculated a counterparty risk requirement; or
 - (B) a receivable which is due for settlement within 90 days;
- (vii) unsecured loans and advances made by the CMSL, unless a deduction has already been made pursuant to sub-paragraphs (v) or (vi) above;
- (viii) capital investments in every subsidiary or associate of the CMSL.

(b) in relation to any other CMSL, shall be less the sum of the following items in the latest accounts:

- (i) intangible assets;
- (ii) future income tax benefits;
- (iii) pre-paid expenses;

- (iv) charged assets, except to the extent that —
 - (A) the CMSL has not drawn down on the credit facility if the charge is created to secure a credit facility;
 - (B) a liability is incurred by the CMSL in respect of the charged asset for use in the CMSL's conduct of regulated activities; or
 - (C) the asset is provided as a collateral for a transaction for which the CMSL is required to calculate a counterparty risk requirement,
as permitted by the Authority;
- (v) unsecured amounts due from directors of the CMSL and their connected persons;
- (vi) unsecured amounts owed by a related corporation, other than an amount arising from any specified deposit or transaction in a regulated activity for which the CMSL has calculated a counterparty risk requirement;
- (vii) unsecured loans and advances made by the CMSL, unless a deduction has already been made pursuant to sub-paragraphs (v) or (vi) above;
- (viii) capital investments in every subsidiary or associate of the CMSL;
- (ix) non-current assets, unless a deduction has already been made pursuant to sub-paragraphs (i) to (viii) above ;
- (x) asset which cannot be converted to cash within 30 days, unless a deduction has already been made pursuant to sub- paragraphs (i) to (ix) above.

3.1.2 A CMSL shall include its redeemable preference share capital in its financial resources only if the redeemable preference share has a redemption period of not less than 2 years when the redeemable preference share is issued and paid up, subject to such conditions or restrictions as the Authority may specify by notice in writing to the relevant CMSL concerned, or such further restrictions that an approved exchange or a designated clearing house of which the CMSL is a member may impose.

PART IV: TOTAL RISK REQUIREMENT

4.1.1 Subject to paragraphs 4.1.3 to 4.1.4, total risk requirement –

(a) in relation to a CMSL licensed only to carry out:

- (i) fund management;
- (ii) real estate investment trust management;
- (iii) advising on corporate finance;
- (iv) providing custodial services for securities; or
- (v) a combination of the activities set out in (i), (ii), (iii) or (iv),

which meets the conditions set out in paragraph 4.1.4, shall be the sum of the –

- (A) operational risk requirement calculated in accordance with Part VII; and
- (B) any other risk requirement as the Authority may, by notice in writing impose on the relevant CMSL concerned;

(b) in relation to any other CMSL, shall be the sum of the –

- (i) counterparty risk requirement calculated in accordance with Part V;
- (ii) position risk requirement calculated in accordance with Part VI;
- (iii) operational risk requirement calculated in accordance with Part VII;
- (iv) large exposure risk requirement calculated in accordance with Part VIII;
- (v) underwriting risk requirement calculated in accordance with Part IX; and
- (vi) any other risk requirement as the Authority may, by notice in writing impose on the relevant CMSL concerned;

4.1.2 A CMSL shall calculate its total risk requirement for each business day no later than the end of the following business day.

4.1.3 If a CMSL that calculates its total risk requirement in accordance with paragraph 4.1.1(a) does not meet the conditions set out in paragraph 4.1.4, the CMSL shall, within 30 calendar days from the end of the quarter that it does not meet the conditions set out in paragraph 4.1.4, calculate its total risk requirement in accordance with paragraph 4.1.1(b).

4.1.4 A CMSL licensed only to carry out:

(a) fund management;

- (b) real estate investment trust management;
- (c) advising on corporate finance;
- (d) providing custodial services for securities; or
- (e) a combination of the activities set out in sub-paragraphs (a), (b), (c) or (d),

shall calculate its total risk requirement in accordance with paragraph 4.1.1(a) only if its average adjusted assets, calculated at the end of each quarter and in accordance with paragraph 4.1.6, do not exceed the lower of -

- (i) 10 times of the base capital requirement applicable to the CMSL under the First Schedule to the Regulations; or
- (ii) 5 times of its financial resources.

4.1.5 A CMSL licensed to only carry out:

- (a) fund management;
- (b) real estate investment trust management;
- (c) advising on corporate finance;
- (d) providing custodial services for securities; or
- (e) a combination of the activities set out in sub-paragraphs (a), (b), (c) or (d),

that calculates its total risk requirement in accordance with paragraph 4.1.1(b), may apply in writing to the Authority for approval to calculate its total risk requirement in accordance with paragraph 4.1.1(a) only if its average adjusted assets, calculated in accordance with paragraph 4.1.6, do not exceed the lower of -

- (i) 10 times of the base capital requirement applicable to the CMSL under the First Schedule to the Regulations; or
- (ii) 5 times of its financial resources,

for a period of four consecutive quarters, or such other period that the Authority may specify by notice in writing to the relevant CMSL concerned.

4.1.6 A CMSL shall calculate its average adjusted assets as follows:

$$\textit{Average Adjusted Assets} = \frac{\sum_{weeks} w_{first} - w_{last} AM_i}{n}$$

where –

" AM_i " is the asset measure as defined in paragraph 4.1.7, as at the end of each week;

" w_{first} " is the first week of each financial quarter;

" w_{last} " is the last week of each financial quarter; and

" n " is the number of weeks in each financial quarter.

4.1.7 A CMSL shall calculate the asset measure as the sum of the following items –

(a) on-balance sheet assets in its accounts; and

(b) off-balance sheet amounts including the following:

(i) all potential credit exposures arising from over-the-counter derivative contracts ; and

(ii) all counterparty exposures arising from off-balance sheet commitments calculated in accordance with paragraph 5.2.43

less –

(A) cash and cash equivalents;

(B) deposits with any bank licensed under the Banking Act of credit quality grade 1 as set out in Annex 5B; and

(C) any item that is included as a deduction from financial resources under paragraph 3.1.1 of Part III.

PART V: COUNTERPARTY RISK REQUIREMENT

Division 1: Overview of Counterparty Risk Requirement

Overview

5.1.1 Subject to paragraphs 5.1.2 to 5.1.11, a CMSL shall calculate its counterparty risk requirement as the sum of the individual counterparty risk requirements calculated in accordance with Division 2 of this Part, unless otherwise specified by the Authority by notice in writing to the relevant CMSL concerned.

Counterparty risk weights and credit quality grade

5.1.2 Where an individual counterparty risk requirement calculated in accordance with Division 2 of this Part is calculated using a counterparty risk weight, a CMSL shall assign the counterparty exposure to a credit quality grade and the corresponding counterparty risk weight in accordance with Annexes 5A and 5B⁴.

Assets deducted from financial resources

5.1.3 A CMSL is not required to calculate a counterparty exposure for any asset that has been deducted from its financial resources under paragraph 3.1.1 of Part III.

Reduction in counterparty exposure

5.1.4 A CMSL may reduce any counterparty exposure —

- (a) by the amount of any specific allowance that the CMSL has made in its accounts for that counterparty exposure;
- (b) by netting the CMSL's claims on and liabilities to a single counterparty only if the requirements set out in Annex 5F are complied with;
- (c) by the amount of any acceptable collateral in accordance with paragraph 5.1.7; or
- (d) as permitted under paragraph 5.2.10.

5.1.5 For the purposes of paragraphs 5.2.1 to 5.2.6, a CMSL shall not offset a positive counterparty exposure against any negative counterparty exposure, whether arising from an open contract or a contract that remains unsettled on or after the due date, to the same counterparty.

5.1.6 For the purposes of paragraph 5.1.4(b), single counterparty refers to –

- (a) where the counterparty is a corporation, that corporation only; or
- (b) where the counterparty is an individual, that individual only.

Acceptable collateral

5.1.7 A CMSL may reduce its counterparty exposure by the amount of any acceptable collateral held by the CMSL and valued in accordance with paragraph 5.1.8, only if the requirements set out in Annex 5G are complied with.

5.1.8 Except for paragraph 5.2.26, an acceptable collateral —

⁴ The Authority may from time to time specify, by notice in writing to the relevant CMSL concerned, a higher risk weight for a particular exposure or group of exposures, taking into account, among other things, the appropriateness of the credit ratings for the specific exposure or group of exposures.

(a) shall have a value determined in accordance with Annex 5H; and

(b) subject to paragraph 5.1.9, where the counterparty exposure and acceptable collateral are denominated in different currencies, shall have a value that is further reduced by applying a haircut of 8%.

5.1.9 A CMSL may not apply the haircut of 8% specified under paragraph 5.1.8(b) if the aggregate currency mismatch exposure for all its customers is not greater than 2% of its free financial resources.

Counterparty exposure for which no counterparty risk requirement has been prescribed

5.1.10 A CMSL shall immediately notify the Authority, and the approved exchange or designated clearing house of which the CMSL is a member (if applicable), if no method is prescribed for determining the counterparty exposure or counterparty risk requirement on a counterparty exposure arising from a financial instrument, and shall calculate the counterparty risk requirement as directed by the Authority by notice in writing to the relevant CMSL concerned.

Negative counterparty risk requirement

5.1.11 A CMSL shall not include any individual counterparty risk requirement that is a negative amount in the calculation of its counterparty risk requirement.

Division 2: Methods for Calculating Counterparty Risk Requirement

Delivery-versus-payment transactions

5.2.1 Subject to paragraph 5.2.2, a CMSL shall calculate an individual counterparty risk requirement on any counterparty exposure arising from a delivery-versus-payment transaction in accordance with paragraphs 5.2.3 to 5.2.6.

5.2.2 Where a contract that is settled on a delivery-versus-payment basis has been offset by a contra contract on or before the due date of settlement of the contract, or has been offset by a forced sale or buying-in transaction after the due date of the contract, a CMSL shall calculate a counterparty risk requirement in accordance with paragraphs 5.2.7 to 5.2.11.

Contracts unsettled at end of or after due date

5.2.3 A CMSL shall calculate a counterparty exposure on any purchase or sale contract transacted by a counterparty in the cash account in relation to any financial instrument, which is settled on a delivery-versus-payment basis and which remains unsettled at the end of or after the settlement date —

(a) in the case of a purchase contract which remains fully or partially unpaid, as the excess of the amount owed by the counterparty over the current market value of the financial instrument purchased; or

(b) in the case of a sale contract where the financial instrument is yet to be delivered by the counterparty to the CMSL, as the excess of the current market value of the financial instrument sold over the contract value of the sale contract.

5.2.4 A CMSL shall calculate an individual counterparty risk requirement on any positive counterparty exposure calculated in accordance with paragraph 5.2.3 as 100% of the counterparty exposure.

Open contracts traded on an exchange other than an approved exchange or a recognised exchange

5.2.5 A CMSL shall calculate a counterparty exposure on any open purchase contract or open sale contract transacted by a counterparty in the cash account in relation to a financial instrument traded on an exchange other than an approved exchange or a recognised exchange, and which is settled on a delivery-versus-payment basis —

- (a) in the case of a purchase contract which is fully or partially unpaid, as the excess of the amount owed by the counterparty over the current market value of the financial instrument purchased; or
- (b) in the case of a sale contract where the financial instrument is yet to be delivered by the counterparty to the CMSL, as the excess of the current market value of the financial instrument sold over the contract value of the sale contract.

5.2.6 A CMSL shall calculate an individual counterparty risk requirement on any positive counterparty exposure calculated in accordance with paragraph 5.2.5 as 8% of the counterparty exposure.

Contract which is offset by contra contract or forced-sale or buying-in transaction

5.2.7 Where a contract referred to in paragraph 5.2.3 or 5.2.5 has been offset by a contra transaction on or before the due date of the contract, or has been offset by a forced-sale or buying-in transaction after the due date of the contract, a CMSL shall calculate a counterparty risk requirement in accordance with paragraphs 5.2.8 to 5.2.11.

5.2.8 Subject to paragraph 5.2.10, a CMSL shall calculate a counterparty exposure to a counterparty from the day the contra transaction takes effect and as the full amount of contra loss incurred by the counterparty arising from the contra transaction.

5.2.9 Subject to paragraph 5.2.10, a CMSL shall calculate a counterparty exposure to a counterparty whose purchase or sale contract remains unsettled after the due date, from the day that a forced sale or buying-in transaction, respectively, is effected against the contract and as the full amount of loss incurred by the counterparty arising from the forced sale or buying-in transaction.

5.2.10 A CMSL may reduce any counterparty exposure calculated in accordance with paragraph 5.2.8 or 5.2.9 by the amount of moneys of the representative of the counterparty which is retained by the CMSL specifically for the purpose of securing contra losses or losses arising from forced sale or buying-in transactions of clients of the representative, provided the CMSL has a contractual agreement with the representative which is evidenced in writing, is legally binding on the parties, is irrevocable and is enforceable against the representative, and which provides the CMSL with an unconditional right to effect such an offset.

5.2.11 A CMSL shall calculate an individual counterparty risk requirement on any positive counterparty exposure calculated in accordance with paragraph 5.2.8 or 5.2.9 as 100% of the counterparty exposure.

Free deliveries

5.2.12 A CMSL shall calculate a counterparty exposure to a counterparty from the date it makes a free delivery, except where the free delivery is made to a designated clearing house or a clearing facility appointed by a recognised exchange —

- (a) as the full contract value of the securities or physical commodities, where the CMSL has sold the securities or physical commodities to the counterparty

under a sale contract and the delivery has been made under the contract but the CMSL has not received payment for the securities or physical commodities sold; or

- (b) as the current market value of the securities or physical commodities, where the CMSL has purchased the securities or physical commodities from the counterparty under a purchase contract and has made payment to the counterparty under the contract but has not received the securities or physical commodities.

5.2.13 A CMSL shall calculate an individual counterparty risk requirement on a counterparty exposure calculated in accordance with paragraph 5.2.12 as 100% of the counterparty exposure.

Securities financing

5.2.14 Subject to paragraph 5.2.16, a CMSL shall calculate a counterparty exposure to a customer to whom it has extended securities financing by deducting the amount of equity in the customer's margin account from the debit balance in the customer's margin account.

5.2.15 A CMSL shall calculate an individual counterparty risk requirement on a counterparty exposure calculated in accordance with paragraph 5.2.14 as 100% of the counterparty exposure.

5.2.16 Where a CMSL causes or permits the absolute value of the net position of the same type of security issued by an issuer, bought and carried, or deposited as collateral, in the margin accounts of all customers to whom it has extended securities financing to exceed the specified value, the value of each of such type of security deposited in the margin account of every customer shall be multiplied by a scaling factor for the purpose of computing counterparty exposure to the customer.

5.2.17 For the purposes of paragraph 5.2.16 —

- (a) "specified value" —

- (i) in relation to equity securities issued by the same issuer, means 10% of the CMSL's financial resources, or 5% of the issue size (being the market capitalisation of the issue); and
- (ii) in relation to debt securities, means 10% of the CMSL's financial resources in all series of debt securities issued by the same issuer, or 10% of the issue size of an individual series of debt securities issued by an issuer; and

- (b) the scaling factor shall be derived from the following formula:

$$\text{Scaling Factor} = \frac{X}{T} \times [1 - 2 (\text{Haircut})] + \frac{U}{T} \times (1 - \text{Haircut})$$

- where
- | | |
|---|--|
| X | is the amount of security in excess of the thresholds set out in paragraph 5.2.16; |
| U | is the amount of security within the thresholds set out in paragraph 5.2.16; |
| T | is the total amount of security (being the sum of X and U); and |

Haircut is the percentage by which the value of the security is adjusted to have a value determined in accordance with paragraphs 5.1.8 and 5.1.9, as appropriate.

Repurchase, reverse repurchase, or securities borrowing and lending agreements and similar agreements

5.2.18 Subject to paragraph 5.2.19, a CMSL shall calculate a counterparty exposure from the relevant trade date —

- (a) in the case of a repurchase or securities lending agreement or similar agreement with any counterparty other than a designated clearing house, as the excess of the current market value of the securities sold or lent over the value of acceptable collateral received under the agreement determined in accordance with paragraphs 5.1.8 and 5.1.9, if this excess is a positive amount; or
- (b) in the case of a reverse purchase or securities borrowing agreement or similar agreement with any counterparty other than a designated clearing house, as the excess of amount paid or 100% of the current market value of acceptable collateral given over the value of the securities bought or borrowed under the agreement determined in accordance with paragraphs 5.1.8 and 5.1.9, if this excess is a positive amount,

and for the purpose of this paragraph, the current market value or value of acceptable collateral and securities includes accrued interest.

5.2.19 Where a CMSL has entered into more than one repurchase agreement, reverse repurchase agreement, securities borrowing agreement, securities lending agreement or a similar agreement with the same counterparty, and these agreements are subject to a netting agreement that satisfies the conditions specified in Annex 5F, the CMSL may calculate an individual counterparty exposure arising from these agreements on a portfolio basis, as the excess of —

- (a) the aggregate current market value of all securities sold or lent and acceptable collateral given; minus
- (b) the aggregate value of all securities bought or borrowed and acceptable collateral received determined in accordance with paragraphs 5.1.8 and 5.1.9, if the excess is a positive amount.

5.2.20 A CMSL shall calculate an individual counterparty risk requirement on any counterparty exposure calculated in accordance with paragraphs 5.2.18 or 5.2.19 —

- (a) in the case of any repurchase agreement, reverse repurchase agreement, securities borrowing agreement, securities lending agreement, or a similar agreement that is due to be completed within 30 days and where the counterparty exposure is not greater than 10% of the current market value of acceptable collateral given or received, as 8% of the counterparty exposure; or
- (b) in the case of any other repurchase agreement, reverse repurchase agreement, securities borrowing agreement, securities lending agreement or a similar agreement, including any repurchase agreement, reverse repurchase agreement, securities borrowing agreement, securities lending agreement or a similar agreement that is not closed out after the due day, or which does not

have a completion date, or which has a rollover option that if exercised would extend the completion period to greater than 30 days, as 100% of the counterparty exposure.

Transactions in marginable products traded on an exchange or novated to a clearing facility

5.2.21 In the case where the CMSL enters into, either on behalf of or with a counterparty —

- (a) any derivative contract that is traded on an approved exchange or overseas exchange, and which is subject to margining requirements; or
- (b) any over-the-counter derivative contract that is novated (however described) to a clearing facility or to any other facility for the clearing and settlement of over-the-counter derivative contract, and which is subject to margining requirements,

the CMSL shall calculate a counterparty exposure to the counterparty in accordance with paragraphs 5.2.22 to 5.2.24.

5.2.22 Subject to paragraph 5.2.24, where a counterparty's account —

- (a) does not have an outstanding margin call; or
- (b) has either —
 - (i) a margin call outstanding not more than 3 business days from the day the margin call is made, if the margin call is to be satisfied by remittance denominated in Japanese Yen; or
 - (ii) a margin call outstanding not more than 2 business days from the day the margin call is made, if the margin call is to be satisfied by remittance denominated in currencies other than Japanese Yen,

the CMSL shall calculate a counterparty exposure to the counterparty as 3% of the maintenance margins in respect of open contracts in the counterparty's account.

5.2.23 Subject to paragraph 5.2.24, where a counterparty's account —

- (a) has a margin call outstanding at the end of or after 3 business days from the day the margin call is made, where the margin call is to be satisfied by remittance denominated in Japanese Yen; or
- (b) has a margin call outstanding at the end of or after 2 business days from the day the margin call is made, where the margin call is to be satisfied by remittance denominated in a currency other than Japanese Yen,

the CMSL shall calculate a counterparty exposure to the counterparty as the sum of —

- (i) 6% of the maintenance margins in respect of open futures contracts in the counterparty's account; and
- (ii) 100% of the margin deficiency in the counterparty's account.

5.2.24 In the case where a counterparty's account that has a margin call outstanding has a negative equity, the CMSL shall, in addition to the counterparty exposure calculated in accordance with paragraph 5.2.22 or 5.2.23, calculate a

counterparty exposure to the counterparty from the day the negative equity occurs, as 100% of the amount of negative equity.

5.2.25 The CMSL shall calculate an individual counterparty risk requirement as 100% of the counterparty exposures calculated in accordance with paragraphs 5.2.22 to 5.2.24.

5.2.26 In this paragraph, the values attributable to the assets deposited by a counterparty to satisfy maintenance margin requirements of an approved exchange, an overseas exchange, a designated clearing house, or a clearing facility appointed by an approved exchange or an overseas exchange, as the case may be, shall be determined in accordance with the relevant business rules of the approved exchange, the overseas exchange, the designated clearing house, or the clearing facility appointed by the approved exchange or the overseas exchange, as the case may be.

Over-the-counter derivative contracts: option sold to or purchased on behalf of counterparty

5.2.27 When a CMSL sells or writes an option to a counterparty or buys an option on behalf of a counterparty and the counterparty has not paid the option premium on the due date of payment of the premium, the CMSL shall calculate a counterparty exposure from the due date of payment as 100% of the amount of unpaid premium.

5.2.28 A CMSL shall calculate an individual counterparty risk requirement as 100% of the counterparty exposure calculated in accordance with paragraph 5.2.27.

Over-the-counter derivative contracts

5.2.29 A CMSL shall calculate a counterparty exposure from the trade date as 100% of the credit equivalent amount of the contract for any over-the-counter derivative contract for which no specific treatment has been specified in this Notice or for any exchange-traded derivative contract which is dependent on the issuer for performance.

5.2.30 A CMSL shall calculate an individual risk requirement on the counterparty exposure calculated in accordance with paragraph 5.2.29 as the product of 8% of the counterparty exposure and appropriate counterparty risk weight set out in Annex 5B.

5.2.31 A CMSL shall calculate a counterparty exposure to a counterparty where a counterparty has not paid, whether in full or partially, an amount due to the CMSL on the closing out, or as periodic settlement, or in final settlement, of an over-the-counter derivative contract, from the date the amount is due and as 100% of the unpaid amount due from the counterparty.

5.2.32 A CMSL shall calculate an individual counterparty risk requirement on the counterparty exposure calculated in accordance paragraph 5.2.31 as 100% of the counterparty exposure.

Credit valuation adjustment risk for over-the-counter derivative contracts

5.2.33 A CMSL shall calculate an individual counterparty risk requirement arising from the credit valuation adjustment risk of all its over-the-counter derivative contracts, other than over-the-counter derivative contracts that are novated (however described) to a clearing facility or to any other facility for the clearing and settlement of over-the-counter derivative contracts and which is subject to margining requirements, in accordance with paragraphs 5.2.34 to 5.2.35.

5.2.34 A CMSL shall calculate an individual counterparty risk requirement, on a portfolio basis⁵, arising from the credit valuation adjustment risk of its over-the-counter derivative contracts using the following formula:

$$CRR = 2.33 \times \sqrt{\left\{ \sum_i 0.5 \times w_i \times (M_i \times E_i^{total} - M_i^{hedge} \times B_i) \right\}^2 + \sum_i 0.75 \times w_i^2 \times (M_i \times E_i^{total} - M_i^{hedge} \times B_i)^2}$$

where -

- (a) CRR is the individual counterparty risk requirement arising from the credit valuation adjustment risk of the CMSL's over-the-counter derivative contracts;
- (b) w_i is the weight applicable to counterparty 'i'. Counterparty 'i' must be mapped to one of the six risk weights set out in Table 5-1, based on its credit quality grade⁶. For a counterparty which does not have an external credit assessment by a recognised ECAI, a CMSL shall assign a credit quality grade of 4 or lower to the counterparty;
- (c) E_i^{total} is the exposure to counterparty 'i', calculated as the credit equivalent amount after including the effect of netting and collateral. The exposure should be discounted by applying the factor $(1 - \exp(-0.05 * M_i)) / (0.05 * M_i)$;
- (d) B_i is the notional of purchased single name credit default swap hedges (summed if more than one position) referencing counterparty 'i', and used to hedge credit valuation adjustment risk. This notional amount should be discounted by applying the factor $(1 - \exp(-0.05 * M_i^{hedge})) / (0.05 * M_i^{hedge})$;
- (e) M_i is the effective maturity of the transactions with counterparty 'i'; and
- (f) M_i^{hedge} is the maturity of the hedge instrument with notional B_i (the quantities $M_i^{hedge} \times B_i$ are to be summed if these are several positions).

Table 5-1 – Counterparty Credit Rating and Weight w_i

Credit Quality Grade	Weight w_i
1	0.7%
2	0.8%
3	1.0%
4	2.0%
5	3.0%
6	10.0%

5.2.35 A CMSL shall only include the following as hedges⁷ in the calculating the individual counterparty risk requirement under paragraph 5.2.33:

- (a) single-name credit default swap;

⁵ This refers to the CMSL's portfolio of over-the-counter derivative contracts across all its counterparties.

⁶ A CMSL shall assign the counterparty to the credit quality grade in accordance with Annex 5A of this Part.

⁷ For avoidance of doubt, tranching or nth-to-default credit default swaps shall not be included as hedges in the calculation of the individual counterparty risk requirement arising from the credit valuation adjustment risks of over-the-counter derivative contracts.

- (b) single-name contingent credit default swap; and
- (c) other equivalent hedging instruments referencing the counterparty directly.

Deposits with exchange, clearing house or clearing facility or member of an exchange, clearing house or clearing facility

5.2.36 A CMSL shall not be required to calculate a counterparty exposure for any deposit provided by the CMSL to —

- (a) an approved exchange;
- (b) a recognised exchange;
- (c) a designated clearing house;
- (d) a clearing facility appointed by a recognised exchange;
- (e) Korea Securities Finance Corporation; or
- (f) a corporation which is a member of any person mentioned in sub-paragraphs (a) to (e),

to meet margin requirements specified by any person referred to in sub-paragraphs (a) to (e) or any other requirement specified by any person referred to in sub-paragraphs (a) to (e), to secure or guarantee obligations of the CMSL in relation to its dealing in securities or trading in futures contracts.

5.2.37 A CMSL shall calculate a counterparty exposure from the day the CMSL provides any deposit to any person referred to in paragraph 5.2.36 in excess of the requirements specified by that person to secure or guarantee obligations of the CMSL in relation to its dealing in securities or trading in futures contracts.

5.2.38 A CMSL shall calculate an individual counterparty risk requirement on the counterparty exposure calculated in accordance with paragraph 5.2.37 as the product of 8% of the counterparty exposure and the appropriate counterparty risk weight set out in Annex 5B.

Interest charged on amounts owed by counterparty

5.2.39 A CMSL shall calculate a counterparty exposure for interest charged on an amount owed by a counterparty, to the extent that such interest is brought into the accounts of the CMSL as income, as 100% of the interest amount.

5.2.40 A CMSL shall calculate an individual counterparty risk requirement for the counterparty exposure calculated in accordance with paragraph 5.2.39 as the product of 8% of the counterparty exposure and the appropriate counterparty risk weight set out in Annex 5B.

Amount owed by counterparty in relation to subscription to securities

5.2.41 A CMSL which has obtained a commitment from a counterparty to sub-underwrite, to accept placement of or subscribe to securities shall, on the day after —

- (a) the date of placement;
- (b) close of applications to subscribe for those securities; or
- (c) announcement of allotment of those securities,

whichever is the latest, calculate a counterparty exposure to that counterparty, as 100% of the excess of any amount that remains unpaid by the counterparty over the current market value of the securities.

5.2.42 A CMSL shall calculate an individual counterparty risk requirement on the counterparty exposure calculated in accordance with paragraph 5.2.41 as 100% of the counterparty exposure.

Off-balance sheet commitment

5.2.43 A CMSL shall calculate a counterparty exposure for any off-balance sheet commitment specified in Annex 5E as the product of the notional amount⁸ of the off-balance-sheet commitment and the relevant CCF set out in Annex 5E.

5.2.44 A CMSL shall calculate an individual risk requirement on the counterparty exposure calculated in accordance with paragraph 5.2.43 as the product of 8% of the counterparty exposure and the appropriate counterparty risk weight set out in Annex 5B.

Any other amount owed by counterparty

5.2.45 A CMSL shall calculate a counterparty exposure from the trade date in relation to any amount owed by a counterparty, except to the extent the amount is —

- (a) permitted to be excluded from the calculation of any counterparty exposure;
- (b) included in the calculation of any counterparty exposure in the preceding paragraphs; or
- (c) deducted from the CMSL's financial resources,

as 100% of the amount owed by the counterparty.

5.2.46 A CMSL shall calculate an individual risk requirement on the counterparty exposure calculated in accordance with paragraph 5.2.45 as the product of 8% of the counterparty exposure and the appropriate counterparty risk weight set out in Annex 5B.

⁸ The notional amount of an off-balance sheet item refers to the amount which has been committed but is as yet not drawn upon by the counterparty.

CREDIT QUALITY GRADE AND USE OF EXTERNAL CREDIT ASSESSMENTS

1. A CMSL shall assign its counterparty exposure, where applicable, to a credit quality grade based on the external credit assessment⁹ of a recognised ECAI that is applicable to the counterparty exposure in accordance with Tables 5A-1 and 5A-2 of this Annex, subject to conditions that the Authority may, by notice in writing, impose on a relevant CMSL.

2. A CMSL shall use the chosen recognised ECAIs and their external credit assessments consistently for each type of counterparty exposure, for both risk weighting and risk management purposes. Where a CMSL has two external credit assessments which map into different credit quality grades, it shall assign the counterparty exposure to the credit quality grade associated with the higher risk weight. Where a CMSL has three or more external credit assessments which map into two or more different credit quality grades, it shall assign the counterparty exposure to the credit quality grade associated with the higher of the two lowest risk weights¹⁰. A CMSL shall not arbitrarily change its choice of recognised ECAIs for each type of exposure after its initial selection.

3. A CMSL is expected to perform an appropriate level of due diligence prior to the use of any recognised ECAI for the purpose of calculating regulatory capital requirements. A CMSL should assess exposures, regardless of whether they are rated or unrated, and determine whether the risk weights applied to such exposures are appropriate for their inherent risk. In those instances where it determines that the inherent risk of such an exposure, particularly if it is unrated, is significantly higher than that implied by the risk weight to which it is assigned, the CMSL should evaluate whether it has adequate resources to meet the higher degree of credit risk.

4. A CMSL shall not recognise the effects of netting, collateralisation or other credit risk mitigants in reducing the counterparty exposure if such effects are already reflected in the issue-specific external credit assessment of the counterparty exposure.

5. Where a counterparty exposure has an issue-specific external credit assessment, a CMSL shall use such assessment. Where a counterparty exposure does not have an issue-specific external credit assessment—

- (a) if there is an issue-specific external credit assessment for another exposure to the same obligor which maps to a risk weight that is lower than that applicable to an unrated exposure, a CMSL may use the issue-specific assessment for the other exposure only if the exposure without an issue-specific assessment ranks *pari passu* with or is senior to the exposure with the issue-specific assessment;

⁹ The CMSL may only use an external credit assessment which is accessible to the public. A CMSL may not use credit assessment that is made available only to the parties to a transaction.

¹⁰ For illustration, if there are three external credit assessments mapping into credit quality grades with risk weights of 0%, 20% and 50%, then the applicable risk weight is 20%. If there are three external credit assessments mapping into credit quality grades with risk weights of 20%, 50% and 50%, then the applicable risk weight is 50%.

- (b) if the obligor has an issuer external credit assessment which maps to a risk weight that is lower than that applicable to an unrated exposure, a CMSL may use the issuer assessment of the obligor only if the exposure is a senior claim;
- (c) if there is an issue-specific external credit assessment for another exposure to the same obligor which maps to a risk weight that is higher than that applicable to an unrated exposure, a CMSL shall use the issue-specific assessment for the other exposure if the exposure without an issue-specific assessment ranks *pari passu* with or is subordinated to the exposure with the issue-specific assessment; or
- (d) if the obligor has an issuer external credit assessment which maps to a risk weight that is higher than that applicable to an unrated exposure, a CMSL shall use the issuer assessment of the obligor if the exposure without an issue-specific assessment ranks *pari passu* with or is subordinated to the highest unsecured claim on the obligor; or
- (e) in all other cases, a CMSL shall apply the risk weight that is applicable to an unrated exposure.

6. Where a counterparty exposure is risk-weighted in accordance with paragraphs 5(a) or (b) above, a CMSL may use a domestic currency external credit assessment only if the counterparty exposure is denominated in that domestic currency.

7. A CMSL may use an external credit assessment to risk weight a counterparty exposure only if the external credit assessment has taken into account and reflects the entire amount of credit risk exposure the CMSL has with regard to all payments owed to it.¹¹

8. A CMSL shall not use unsolicited external credit assessments to assign any counterparty exposure to a credit quality grade, unless –

- (a) it has assessed the quality of the unsolicited external credit assessments that it intends to use and is satisfied that these are comparable in performance with solicited external credit assessments and maintains relevant records and documents to be made available to the Authority upon request; and
- (b) it uses unsolicited external credit assessments consistently for each type of exposures, for both risk weighting and risk management purposes.

9. The Authority may exclude the use of unsolicited external credit assessments by a recognised ECAI for the purpose of calculating regulatory capital requirements if the Authority is not satisfied that the unsolicited assessments are not inferior in quality to the general quality of solicited assessments. In the event that the Authority is of the view that a recognised ECAI uses unsolicited ratings to put pressure on entities to obtain solicited ratings, the Authority may refuse to recognise such ECAIs as eligible for provision of credit assessments for capital adequacy purposes.

¹¹ For example, if a CMSL is owed both principal and interest, the assessment should fully take into account and reflect the credit risk associated with repayment of both principal and interest.

Table 5A-1: Credit Quality Grades and Recognised ECAI

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

Table 5A-2: Credit Quality Grades and Recognised ECAI for Short-Term 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

Table 5A-3: Investment Grade Credit Ratings

Credit Rating Agency	Rating
Fitch Ratings	BBB-/F-3
Moody's Investors Services	Baa3/P-3
Standard & Poor's Ratings Services	BBB-/A-3

COUNTERPARTY RISK WEIGHTSCash

1. A CMSL shall apply a 0% risk weight to cash and cash equivalents.
2. Subject to paragraph 3 below, a CMSL shall apply a 20% risk weight to cheques, drafts and other items drawn on banking institutions that are either payable immediately upon presentation or that are in the process of collection¹².
3. A CMSL may apply a 0% risk weight to cheques, drafts and other items drawn on other banking institutions that are either payable immediately upon presentation or that are in the process of collection if the aggregate exposures to a counterparty arising from cheques, drafts and other items drawn on other banking institutions that are either payable immediately upon presentation or that are in the process of collection do not exceed \$20,000.

Central Government and Central Bank

4. A CMSL shall apply a risk weight to any counterparty exposure to a central government or a central bank in accordance with Table 5B-1.

Table 5B-1: Risk Weights for Central Governments and Central Banks

Credit Quality Grade	1	2	3	4	5	6	Unrated
Risk Weight	0%	20%	50%	100%	100%	150%	100%

5. A CMSL shall apply a 0% risk weight to any counterparty exposure to the Government or the Authority which is denominated in Singapore dollars and funded by liabilities denominated in Singapore dollars.

PSE

6. A CMSL shall apply a risk weight to any counterparty exposure to a PSE in accordance with Table 5B-2.

Table 5B-2: Risk Weights for PSEs

Credit Quality Grade	1	2	3	4	5	6	Unrated
Risk Weight	20%	50%	50%	100%	100%	150%	100%

7. A CMSL shall apply a risk weight to any counterparty exposure to a PSE in accordance with Table 5B-3 if exposures to the central government of the jurisdiction of that PSE have a credit quality grade of "1" as set out in Table 5A-1 of Annex 5A.

Table 5B-3: Risk Weights for Exposures to PSEs where the Central Government has a Credit Quality Grade of "1"

Credit Quality Grade	1	2	3	4	5	6	Unrated
Risk Weight	0%	20%	20%	100%	100%	150%	20%

¹² Where CMSL has systems and controls in place to ensure that cash has been received before securities or other items are released to customers, the 20% risk weight shall not apply for such items.

Multilateral Agency

8. A CMSL shall apply a risk weight to any counterparty exposure to a multilateral agency in accordance with Table 5B-4.

Table 5B-4: Risk Weights for Multilateral Agencies

Credit Quality Grade	1	2	3	4	5	6	Unrated
Risk Weight	20%	50%	50%	100%	100%	150%	50%

9. A CMSL shall apply a 0% risk weight to any counterparty exposure to a recognised multilateral agency, as set out in Annex 5C.

10. For the purpose of paragraph 8 and 9, a multilateral agency refers to a multilateral development bank, the Bank for International Settlements, the International Monetary Fund, the European Central Bank or the European Community.

Banking Institution

11. A CMSL shall apply a risk weight to any counterparty exposure to a banking institution in accordance with Table 5B-5.

Table 5B-5: Risk Weights for Counterparty Exposures to Banking Institutions

Credit Quality Grade	1	2	3	4	5	6	Unrated
Risk Weight	20%	50%	50%	100%	100%	150%	50%
Risk Weight for Short-Term ¹³ Exposures	20%	20%	20%	50%	50%	150%	20%

12. Notwithstanding paragraph 11, a CMSL may apply a risk weight of –

- (a) 0% to any counterparty exposure arising from CMSL's own monies deposited with any bank licensed under the Banking Act (Cap. 19) of credit quality grade "1"; and
- (b) 10% to any short-term counterparty exposure arising from CMSL's own monies deposited with any bank licensed under the Banking Act (Cap. 19) of credit quality grade "2".

13. A CMSL shall apply a risk weight to any short-term counterparty exposure to a banking institution with an issue-specific external credit assessments in accordance with Table 5B-6.

Table 5B-6: Risk Weights for Short-Term Counterparty Exposures to Banking Institutions with Issue-Specific External Credit Assessments

Short-Term Credit Quality Grade	I	II	III	IV
Risk Weight	20%	50%	100%	150%

14. The risk weight for any counterparty exposure to a banking institution that does not have an external credit assessment by a recognised ECAI shall be the risk weight

¹³ For the purposes of this table and paragraph 11 of this Annex, short-term exposures refer to exposures with an original maturity of three months or less and that are not expected to be rolled over.

determined in accordance with Table 5B-5 or the risk weight that is applicable to a counterparty exposure to the central government of the jurisdiction in which the banking institution is incorporated or established, whichever is higher.

15. If a short-term counterparty exposure to a banking institution with an issue-specific external credit assessment¹⁴ –

- (a) attracts a risk weight of 50% or 100%, then the CMSL shall apply a risk weight of not lower than 100% to any unrated short-term counterparty exposure to the same banking institution; or
- (b) attracts a risk weight of 150%, then the CMSL shall apply a risk weight of 150% to any unrated counterparty exposure (whether long-term or short-term) to the same banking institution.

Corporate Entity

16. A CMSL shall apply a risk weight to any counterparty exposure to a corporate entity in accordance with Table 5B-7.

Table 5B-7: Risk Weights for Counterparty Exposures to Corporate Entities

Credit Quality Grade	1	2	3	4	5	6	Unrated
Risk Weight	20%	50%	100%	100%	150%	150%	100%

17. A CMSL shall risk-weight any short-term counterparty exposure to a corporate entity with an issue-specific external credit assessment in accordance with Table 5B-8.

Table 5B-8: Risk Weights for Counterparty Exposures to Corporate Entities with Issue-Specific External Credit Assessments

Short-Term Credit Quality Grade	I	II	III	IV
Risk Weight	20%	50%	100%	150%

18. The risk weight for any counterparty exposure to a corporate entity that does not have an external credit assessment by a recognised ECAI shall be the risk weight determined in accordance with Table 5B-7 or the risk weight that is applicable to counterparty exposure to the central government of the jurisdiction in which the corporate entity is incorporated or established, whichever is higher.¹⁵ If a short-term counterparty exposure to a corporate entity with issue-specific external credit assessment¹⁶ –

- (a) attracts a risk weight of 50% or 100%, then the CMSL shall apply a risk weight of not lower than 100% to any unrated short-term counterparty exposure to the same corporate; or

¹⁴ For the avoidance of doubt, in the case of an exposure in which this sentence and paragraph 5 of Annex 5A both apply, the CMSL shall apply the higher of the two risk weights.

¹⁵ The Authority may from time to time specify, by notice in writing to the relevant CMSL concerned, a higher risk weight for a particular exposure or group of exposures.

¹⁶ For the avoidance of doubt, in the case of an exposure in which this sentence and paragraph 5 of Annex 5A both apply, the CMSL shall apply the higher of the two risk weights.

- (b) attracts a risk weight of 150%, then the CMSL shall apply a risk weight of 150% to any unrated counterparty exposure (whether long-term or short-term) to the same corporate.

19. For the purpose of paragraphs 16 to 18, a counterparty exposure to a corporate entity refers to a counterparty exposure to any corporation, partnership, sole proprietorship or trustee in respect of a trust, other than a counterparty exposure to a PSE, multilateral agency or banking institution.

Past Due Exposures

20. A CMSL shall apply a risk weight to the unsecured portion of any counterparty exposure that is past due for more than 90 days in accordance with Table 5B-9.

Table 5B-9: Risk Weights for Past Due Exposures

Condition	Risk Weight
Where specific allowances are less than 20% of the outstanding amount of the exposure	150%
Where specific allowances are no less than 20% of the outstanding amount of the exposure	100%

Any Other Counterparty

21. A CMSL shall apply a risk weight of 100% to any other counterparty.

RECOGNISED MULTILATERAL AGENCIES

Table 5C-1: Recognised Multilateral Agencies

No.	Recognised Multilateral Agency
1	The African Development Bank
2	The Asian Development Bank
3	The Bank for International Settlements
4	The Caribbean Development Bank
5	The Council of Europe Development Bank
6	The European Bank for Reconstruction and Development
7	The European Central Bank
8	The European Investment Bank
9	The European Investment Fund
10	The European Community
11	The Inter-American Development Bank
12	The International Finance Facility for Immunisation
13	The International Monetary Fund
14	The Islamic Development Bank
15	The Nordic Investment Bank
16	The World Bank Group, including the International Bank for Reconstruction and Development and the International Finance Corporation

CREDIT EXPOSURE FACTORS FOR OVER-THE-COUNTER DERIVATIVE CONTRACTS

Table 5D-1: Credit Exposure Factors¹⁷

	OTC Derivative Contract	One year or less	Over one year to five years	Over five years
(a)	Foreign Exchange Rate & Gold	1.0%	5.0%	7.5%
(b)	Interest Rates¹⁸	0.0%	0.5%	1.5%
(c)	Equity Securities	6.0%	8.0%	10.0%
(d)	Precious Metals (except gold)	7.0%	7.0%	8.0%
(e)	Other Commodities - Includes any forward, swap, purchased option and other similar derivative contracts which are not classified in (a) to (d)	10.0%	12.0%	15.0%
(f)	Credit Derivative Contract	Protection buyer		Protection seller
	Total Return Swap			
	Qualifying reference obligation ¹⁹	5%		5%
	Non-qualifying reference obligation	10%		10%
	Credit Default Swap²⁰			
	Qualifying reference obligation	5%		5% ²¹
	Non-qualifying reference obligation	10%		10% ⁸

¹⁷ (a) For a transaction with multiple exchanges of principal, the add-on factors are to be multiplied by the number of remaining payments in the contract.

(b) For a transaction that is structured to settle outstanding exposures following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity would be equal to the time until the next reset date. In the case of an interest rate contract with a remaining maturity of more than one year which meets the above criteria, the add-on factor is subject to a minimum of 0.5%.

¹⁸ No potential credit exposure would be calculated for single currency floating/floating interest rate swaps. The exposure on these contracts would be evaluated solely on the basis of their fair values.

¹⁹ Qualifying reference obligation means any security that is issued by any multilateral agency, any security (including one issued by a PSE) that has a credit quality grade of "3" or better as set out in Annex 5A of this Part based on the external credit assessment of at least one recognised ECAI, and any unrated security issued by a PSE which belongs to a country with a credit quality grade of "1" as set out in Annex 5A of this Part. Where a security has more than one external credit assessment and these map into different credit quality grades, paragraph 2 of Annex 5A shall apply.

²⁰ Where the credit derivative is a first-to-default transaction, the potential credit exposure will be determined by the lowest quality underlying reference obligation in the basket, i.e. if there is any non-qualifying reference obligation in the basket, the non-qualifying reference obligation should be used. For a second-to-default transaction, the potential credit exposure will be determined by the second lowest quality underlying reference obligation in the basket.

²¹ The protection seller of a credit default swap shall only be subject to the credit exposure factor where it is subject to closeout upon the insolvency of the protection buyer while the underlying reference obligation is still solvent. The potential credit exposure should be capped to the amount of unpaid premiums.

CREDIT CONVERSION FACTORS FOR OFF-BALANCE SHEET COMMITMENTS

Table 5E-1: Credit Conversion Factors (CCF)

Description of Off-balance Sheet Item	CCF
Commitments with certain drawdown	100%
Transactions, other than securities financing transactions, involving the posting of securities held by the CMSL as collateral	100%
Transaction-related contingent items (For example, performance bonds)	50%
Other commitments -	
(i) with an original effective maturity of more than one year	50%
(ii) with an original effective maturity of one year or less	20%
(iii) which are unconditionally cancellable at any time by the CMSL	0%

NETTING

Section 1: Scope of Application

1.1 Netting may only apply to a transaction with bilateral netting agreements that meet the requirements set out in this Annex, and shall only involve a group of transactions between a CMSL and a counterparty containing transactions in only one of the following product categories:

- (a) over-the-counter derivative contract;
- (b) repurchase, reverse repurchase, securities lending transaction and securities borrowing transaction; or
- (c) securities financing transaction.

1.2 On-balance sheet items shall not be netted against off-balance sheet items.

Section 2: Requirements for Netting Agreements

2.1 Subject to this Section and Sections 3 and 4 of this Annex, a CMSL shall –

- (a) obtain a written independent legal opinion confirming that the netting agreement is valid, effective and enforceable for each of the following jurisdictions:
 - (i) the jurisdiction in which the counterparty is incorporated or established;
 - (ii) if a foreign branch of the CMSL or the counterparty has entered or will be entering into the transaction, the jurisdiction in which the branch of the CMSL or the counterparty, as the case may be, is located;
 - (iii) the jurisdiction whose law governs the netting agreement; and
 - (iv) the jurisdiction whose law governs any transaction subject to the netting agreement if different from sub-paragraph (iii), (referred to as “relevant jurisdictions” in this Annex);
- (b) ensure that the netting agreement –
 - (i) provides the non-defaulting party the right to terminate and close-out in a timely manner all transactions upon the occurrence of a termination event as defined in the netting agreement, including the default or insolvency of the defaulting party;
 - (ii) allows for the prompt liquidation or set-off of collateral upon the event of default; and
- (c) ensure that the transactions covered in the netting agreement are marked-to-market daily.

- 2.2 The Authority may, where it considers necessary, require a CMSL to provide –
- (a) a summary listing²² of the source and date of each legal opinion obtained for the purposes of paragraph 2.1(a), stating in each case, whether such legal opinion was commissioned specifically by the CMSL, by the CMSL collectively with any other party, or by some other third party; and
 - (b) copies of, or access to, the netting agreement and the legal opinions obtained for the purposes of paragraph 2.1(a).

Section 3: Legal Opinions obtained for purposes of paragraph 2.1(a)

- 3.1 A legal opinion may be—
- (a) in the form of a memorandum of law and addressed directly to the CMSL or the sponsors of a particular netting agreement or form of netting agreement; or
 - (b) the product of a number of parties (including the CMSL) pooling together to seek a collective opinion on a particular netting agreement.
- 3.2 Each legal opinion shall confirm that in an event of default as defined under the netting agreement, including liquidation, bankruptcy or other similar circumstance of either the counterparty or the CMSL, the courts and administrative authorities²³ of the relevant jurisdiction will find that the claims and obligations of the CMSL pursuant to the relevant transactions would be limited to a net sum calculated in accordance with the netting agreement under the law of the relevant jurisdiction.
- 3.3 In addition, each legal opinion should²⁴ -
- (a) highlight the material clauses in the netting agreement that provide for the netting of transactions (“material netting clauses”);
 - (b) confirm that the unenforceability or illegality of any clause (other than a material netting clause) in the netting agreement is unlikely to undermine the material netting clauses referred to in sub-paragraph (a) above;
 - (c) state the circumstances under which the netting agreement may be relied upon, including –
 - (i) the legal form of, or activities conducted by, the counterparty; and
 - (ii) whether certain counterparties (such as banks, insurance companies or local authorities) may be subject to special rules relating to insolvency as a result of the legal form of, or activities conducted by, the counterparties;

²² This can be prepared by either the external or internal legal adviser of the CMSL.

²³ This includes a court-appointed administrator and an administrator appointed by a regulatory authority.

²⁴ This is not intended to be an exhaustive list of all the matters that should be covered in a legal opinion obtained for the purpose of paragraph 2.1(a).

- (d) state whether the netting or other default provisions in the netting agreement are enforceable or enforceable differently (and if so, the extent of the difference) in a non-liquidation event, such as administration, judicial management, receivership, voluntary arrangement and a scheme of arrangement;
- (e) state to what extent, if at all, the netting needs to be reflected in the records of the counterparties in order for it to be valid, effective and enforceable;
- (f) state whether a court or administrative authority in the jurisdiction covered by the legal opinion would uphold the rate chosen for the conversion of foreign currency obligations for the purpose of calculating the close-out amount and whether there are any statutory or other applicable rules that may affect this aspect of the netting agreement;
- (g) state whether, under the law of the jurisdiction covered by the legal opinion, it is necessary for the enforceability of the netting that all transactions be regarded as part of a single agreement, and if so, whether there is anything in the close-out methodology which may be held to be inconsistent with the treatment of all transactions as part of a single agreement and the effect it may have on the netting;
- (h) state whether there is any reason to believe that the netting agreement would be unenforceable because of the law of another jurisdiction;
- (i) state whether there is any preference specified in the netting agreement for automatic rather than optional close-out, and if so, whether such preference would affect the enforceability of the netting agreement;
- (j) state whether there are legal problems in exercising any discretion or flexibility provided for in the netting agreement, and if so, whether such problems affect the enforceability of the netting agreement; and
- (k) if other clauses are added to a standard form agreement, confirm that such additional clauses do not throw any reasonable doubt or affect the overall validity, effectiveness or enforceability of the netting agreement.

3.4 The Authority is aware that it may not be possible for a CMSL to obtain a legal opinion that provides a definitive view on the validity, effectiveness and enforceability of the netting agreement without certain assumptions or qualifications. The presence *per se* of assumptions and qualifications within the legal opinion will not render the legal opinion unsatisfactory. However, the assumptions underlying the legal opinion shall not be unduly restrictive. They shall be specific, of a factual nature and adequately explained within the legal opinion. Where qualifications are made, these shall be specific and their effect shall be adequately explained within the legal opinion. A CMSL shall examine and assess the assumptions and qualifications in the legal opinion.

3.5 If the CMSL determines that —

- (a) the absence of any of the information listed in paragraph 3.3; or
- (b) any of the assumptions or qualifications in the legal opinion,

gives rise to reasonable doubt as to the validity, effectiveness or enforceability of the netting agreement, the CMSL shall not recognise the netting agreement.

3.6 In this regard, where there is more than one relevant jurisdiction in relation to a netting agreement, the CMSL shall not recognise the netting agreement, if the CMSL has any reasonable doubts, based on its own evaluation of the legal opinions, as to whether the netting agreement is valid, effective and enforceable in any relevant jurisdiction considering the potential for conflicts of laws and whether action may be taken by insolvency officials in other jurisdictions.

3.7 The CMSL shall review each legal opinion and obtain updates thereto, either in the form of a fresh legal opinion or a letter from an external firm of lawyers confirming that the opinion on the validity, effectiveness and enforceability of the netting agreement remains unchanged. Each legal opinion should be reviewed at least once every 12 months, but in any case shall be reviewed no later than 15 months from the previous review²⁵. The CMSL shall also document the sources of the legal opinions, and the expertise of the persons giving the legal opinions.

3.8 Notwithstanding paragraph 2.1(a), where any relevant jurisdiction does not recognise netting or recognises netting only in a limited form, the CMSL shall report transactions for which that jurisdiction is a relevant jurisdiction on a gross basis. All other transactions under the same netting agreement may be reported on a net basis.

3.9 The CMSL shall inform the Authority immediately when it becomes aware of any relevant jurisdiction that does not recognise netting or recognises netting only in a limited form (whether as to certain products, or with counterparties of certain legal forms or counterparties performing certain activities).

3.10 Where a CMSL is aware that a supervisory authority of the counterparty of the CMSL (whether the supervisory authority is the home or host supervisor) is not satisfied that a netting agreement is legally valid, effective or enforceable under the law of the jurisdiction of that supervisory authority, the CMSL shall not recognise the netting agreement.

Section 4: Policies, Systems and Controls

4.1 A CMSL shall have in place a netting policy that sets out, as a minimum, the following:

- (a) the person responsible for setting and reviewing the policy on netting;
- (b) the frequency of review of the netting policy;
- (c) the person responsible for approving the application of a netting agreement to any transaction (including determining whether the netting agreement is

²⁵ Independent legal opinions commissioned and collated by the International Swaps and Derivatives Association, the Securities Industry and Financial Markets Association, the International Capital Market Association and the International Securities Lending Association, which have been assessed by the CMSL to meet the requirements set out in this Annex and are updated by the associations on an annual basis may be exempt from the requirement to review the legal opinion at least once every 12 months.

covered by an existing legal opinion or whether separate legal opinions are required);

- (d) how the CMSL monitors legal developments affecting its netting agreements and the need to obtain additional legal opinions;
- (e) what the CMSL is to include in its netting agreements to ensure that its interests, rights and obligations are duly reflected; and
- (f) the processes for determining and reporting net exposures to individual counterparties.

4.2 The CMSL shall also have in place adequate systems and controls to monitor the transactions, including systems and controls to ensure that -

- (a) only transactions entered into by the CMSL with a counterparty that are covered by a netting agreement that meet the conditions and requirements set out within this Annex are netted;
- (b) net exposures to individual counterparties are accurately determined and reported;
- (c) documentary evidence of the transactions subject to netting are appropriately safeguarded and the CMSL is able to produce such documentary evidence, if required by the Authority;
- (d) the legal opinions are not superseded by subsequent changes in the laws of the relevant jurisdictions. The following shall be duly documented and should be updated at least once every 12 months, but in any case, shall be updated no later than 15 months from the previous update:
 - (i) the types of counterparties and transactions covered by each netting agreement; and
 - (ii) the relevant jurisdictions for each netting agreement to which the CMSL is a party. The CMSL shall note any jurisdiction for which any doubt may exist as to the legal validity, effectiveness or enforceability of netting and what action the CMSL has taken as a result;
- (e) counterparty limits are monitored in terms of such net exposures; and
- (f) potential roll-off exposures, which occur upon maturity of short-dated obligations that are netted against longer dated claims, are monitored.

REQUIREMENTS FOR RECOGNITION OF COLLATERAL

1. A CMSL shall ensure that the following requirements are complied with before the CMSL recognises the effects of any collateral in reducing its counterparty exposure to a counterparty:

- (a) the legal mechanism by which collateral is pledged, assigned or transferred shall confer on the CMSL the right to liquidate or take legal possession of the collateral, in a timely manner, in the event of the default, insolvency or bankruptcy (or one or more otherwise-defined credit events set out in the transaction documentation) of the counterparty (and, where applicable, of the custodian holding the collateral);
- (b) the CMSL has taken all steps necessary to fulfil those requirements under the law applicable to the CMSL's interest in the collateral for obtaining and maintaining an enforceable security interest²⁶ or for exercising a right to net or set off in relation to title transfer collateral;
- (c) the credit quality of the counterparty and the value of the collateral do not have a material positive correlation²⁷;
- (d) the CMSL has implemented procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring default of counterparty and liquidating the collateral are observed, and that the collateral can be liquidated promptly; and
- (e) where the collateral is held by a custodian, the CMSL has taken reasonable steps to ensure that the custodian segregates the collateral from the custodian's own assets.

²⁶ For example, by registering it with a registrar.

²⁷ For example, securities issued by the counterparty or a related group entity would be ineligible.

APPLICABLE HAIRCUTS FOR ACCEPTABLE COLLATERAL

Table 5H-1: Acceptable Collateral (Excluding Debt Securities)

Collateral	Haircut (%)
Cash	0
Gold	15
Shares and convertible bonds that are listed on Singapore Exchange Securities Trading Limited or a recognised exchange and included in the FTSE Straits Times Index, MSCI Singapore Free Index or a market index of a recognised exchange	15
Shares and convertible bonds that are listed on Singapore Exchange Securities Trading Limited or a recognised exchange and issued by a corporation with shareholders' funds of not less than \$200 million or its equivalent in any foreign currency	25
Collective investment schemes (other than exchange traded funds and property funds)	25 or highest haircut applicable to the deposited property of the collective investment scheme, whichever is lower
Exchange Traded Funds quoted on Singapore Exchange Securities Trading Limited or a recognised exchange	25
Property funds listed on Singapore Exchange Securities Trading Limited or a recognised exchange	25
Any other contract traded on Singapore Exchange Securities Trading Limited or a recognised exchange	40
Initial public offerings to be listed for quotation or quoted on the Singapore Exchange Securities Trading Limited, which has been fully paid for by a customer	25
Securities quoted on Central Limit Order Book (CLOB) International	25
Any other collateral	100

Table 5H-2: Acceptable Collateral (Debt Securities)

Collateral	Haircut (%)		
	Residual Maturity	Issued by a central government or central bank	Other Issuers
<ul style="list-style-type: none"> • Fitch Ratings: AAA to AA-/F1 • Moody's Investors Services: Aaa to Aa3/ P1 • Standard & Poor's Ratings Services: AAA to AA-/A-1 	≤1 year	0.5	1
	>1 year, ≤5 years	2	4
	>5 years	4	8
<ul style="list-style-type: none"> • Fitch Ratings: A+ to BBB-/F2 to F3 • Moody's Investors Services: A1 to Baa3/P2 to P3 • Standard & Poor's Ratings Services: A+ to BBB-/A-2 to A-3 	≤1 year	1	2
	>1 year, ≤5 years	3	6
	>5 years	6	12

Collateral		Haircut (%)	
Debt Securities with issue rating of (Long-term/Short-term) -	Residual Maturity	Issued by a central government or central bank	Other Issuers
<ul style="list-style-type: none"> Fitch Ratings: BB+ to BB- Moody's Investors Services: Ba1 to Ba3 Standard & Poor's Ratings Services: BB+ to BB- 	All	15	100
<p>Debt securities that are listed on Singapore Exchange Securities Trading Limited or a recognised exchange, where the issuer's shares —</p> <p>(a) are listed on the same exchange; and</p> <p>(b) included in the Straits Times Index, MSCI Singapore Index or a market index of a recognised exchange</p>	All	Highest haircut applicable to the debt security in this Table.	
Debt securities that are listed on Singapore Exchange Securities Trading Limited or a recognised exchange, where the issuer's shares are listed on the same exchange			

PART VI: POSITION RISK REQUIREMENT

Division 1: Overview of Position Risk Requirement

Overview

6.1.1 A CMSL shall calculate a position risk requirement for any position in securities, futures contract, forward contract, physical commodity, derivative contract on a physical commodity, foreign exchange contract or any other instrument that the CMSL holds as a principal, except that where the CMSL holds such a position as a result of a net underwriting commitment, the CMSL shall calculate an underwriting risk requirement for that position in accordance with Part IX.

6.1.2 Subject to paragraphs 6.1.3 to 6.1.7, a CMSL shall calculate its position risk requirement —

- (a) in accordance with Division 2 of this Part;
- (b) where the CMSL has prior written approval from the Authority, in accordance with a risk measurement model and subject to such conditions and restrictions as the Authority may impose; or
- (c) in such other manner as the Authority may specify by notice in writing to the relevant CMSL concerned.

6.1.3 A CMSL shall calculate a position risk requirement as the sum of the following:

- (a) equity position risk requirement calculated in accordance with Subdivision 1 of Division 2 of this Part;
- (b) equity derivative position risk requirement calculated in accordance with Subdivision 2 of Division 2 of this Part;
- (c) debt position risk requirement calculated in accordance with Subdivision 3 of Division 2 of this Part;
- (d) debt derivative position risk requirement calculated in accordance with Subdivision 4 of Division 2 of this Part;
- (e) commodity position risk requirement calculated in accordance with Subdivision 5 of Division 2 of this Part;
- (f) commodity derivative position risk requirement calculated in accordance with Subdivision 6 of Division 2 of this Part;
- (g) foreign exchange risk requirement calculated in accordance with Subdivision 7 of Division 2 of this Part; and
- (h) any other position risk requirement calculated in accordance with Subdivision 8 of Division 2 of this part.

Valuation

6.1.4 A CMSL shall value, on a daily basis, any position at the current market value of the position.

6.1.5 A CMSL shall convert its positions in equity, debt, physical commodities and foreign exchange derivative contracts into notional positions in the relevant underlying

instruments in accordance with Annex 6A and value the notional positions at the current market value of the principal amount of the relevant underlying instruments.

Netting

6.1.6 For the purpose of determining its position in any equity security, equity derivative contract, debt security, debt derivative contract, physical commodity, or physical commodity derivative contract, a CMSL shall derive its net position, before the calculation of each position risk requirement specified in paragraph 6.1.3, in accordance with Annex 6B.

Holdings in funds

6.1.7 A CMSL shall use either of the following methods to calculate the position risk requirement for a position in any fund, other than an equity position in a collective investment scheme where the position risk requirement is calculated in accordance with Subdivision 1 or Subdivision 2 of Division 2 of this Part²⁸:

- (a) calculate the position risk requirement for each of the individual underlying positions in the constituents of the fund in accordance with paragraph 6.1.3; or
- (b) calculate the position risk requirement by applying the highest of the risk factors applicable to each of the individual underlying positions in the constituents of the fund, to the net position in the fund.

Division 2: Methods for Calculating Position Risk Requirements

Subdivision 1: Equity Position Risk Requirement

6.2.1 A CMSL shall calculate its equity position risk requirement in accordance with paragraphs 6.2.2 to 6.2.12 and 6.2.24 to 6.2.26, for any position it holds as a principal in the following equity instruments:

- (a) an equity, except an equity hedging an option, to the extent to which the nominal amount of the equity is matched by the nominal amount of the equity underlying the option, which the CMSL is to include in the calculation of its equity derivative position risk requirement;
- (b) a depository receipt;
- (c) a convertible financial instrument if —
 - (i) less than 30 days remain to the first date on which conversion may take place; and
 - (ii) the convertible financial instrument is trading at a premium of less than 10%; and
- (d) any other instrument that has equity position risk;

6.2.2 For the purposes of paragraph 6.2.1, the premium of a convertible financial instrument shall be calculated as the excess of the current market value of the

²⁸ The position risk requirement for the individual underlying positions in the constituents of the fund or the net position in the fund should be reported under paragraph 6.1.3 based on the risk factor that is applied, for example, if the risk factor applied corresponds to a risk factor under the debt position risk requirement, then the position risk requirement should be reported as a debt position risk requirement.

convertible financial instrument over the current market value of the underlying equity, expressed as a percentage of the current market value of the underlying equity.

6.2.3 A CMSL shall calculate the equity position risk requirement based on the country or territory where the instrument is listed or, if the instrument is not listed, where the issuer is incorporated and shall include any depository receipt on an equity in the country or territory where the underlying equity is listed.

6.2.4 Where a convertible financial instrument does not meet the conditions in paragraph 6.2.1(c), a CMSL may include any position in such convertible financial instrument in the calculation of the equity position risk requirement of the CMSL, provided that the convertible financial instrument is in the money by at least the appropriate standard method position risk factor.

Inclusion of equity derivative contracts

6.2.5 For the purposes of paragraph 6.2.1, a CMSL may include any position it holds as a principal in the following equity derivative contracts:

- (a) a futures contract, forward contract or CFD on a single equity, an equity index or equity basket;
- (b) a warrant or an option on a single equity, an equity index or equity basket provided that the warrant or option is in the money by at least the appropriate standard method position risk factor for the underlying equity position;
- (c) a synthetic long or short position in a single equity, an equity index or equity basket.

6.2.6 For the purpose of including a position in a depository receipt, a warrant, a convertible financial instrument or any other equity derivative contract in the calculation of its equity position risk requirement, a CMSL shall derive the notional position of the depository receipt, convertible financial instrument or equity derivative contract in accordance with Annex 6A.

Methods to calculate equity position risk requirement

6.2.7 A CMSL shall use either of the following methods to calculate the equity position risk requirement:

- (a) equity standard method as set out in paragraph 6.2.9; or
- (b) equity building block method as set out in paragraphs 6.2.10 to 6.2.12.

6.2.8 The equity position risk requirement of a CMSL shall include the aggregate of the equity position risk requirements calculated in accordance with paragraph 6.2.7.

Equity standard method

6.2.9 A CMSL applying the equity standard method shall calculate its equity position risk requirement by carrying out the following steps:

- (a) determine the net position in each equity in each country or territory, by allocating each gross position to an appropriate country or territory in accordance with paragraph 6.2.3 and netting positions in the equity;
- (b) calculate an equity position risk requirement for each net position in an equity, as the product of the absolute value of the current market value of the

equity and the appropriate equity standard method position risk factor set out in Table 6-1;

- (c) calculate the equity position risk requirement for each country or territory as the aggregate of the equity position risk requirements for all net positions in equities allocated to that country or territory calculated in accordance with sub-paragraph (b); and
- (d) calculate the equity position risk requirement of the CMSL as the aggregate of the equity position risk requirements for all countries and territories calculated in accordance with sub-paragraph (c).

TABLE 6-1: Equity Standard Method Position Risk Factors

Type	Equity Position Risk Factor
Qualifying equity index	10%
Other equity index	16%
Collective investment schemes (including exchange-traded funds), where investments are restricted to qualifying equity indices	10%
Other collective investment schemes	16%
Single equities that are constituents of a qualifying equity index	16%
Any other equity	32%

Equity building block method

6.2.10 A CMSL applying the equity building block method shall calculate its equity position risk requirement by carrying out the following steps:

- (a) calculate the equity position risk requirement for each country or territory as the sum of —
 - (i) the equity specific risk requirement for that country or territory calculated in accordance with paragraph 6.2.11; and
 - (ii) the equity general risk requirement for that country or territory calculated in accordance with paragraph 6.2.12; and
- (b) calculate the equity position risk requirement as the aggregate of equity position risk requirements for all countries and territories.

Equity specific risk requirement

6.2.11 To calculate the equity specific risk requirement for a country or territory, a CMSL shall —

- (a) allocate each gross position in an equity to an appropriate country or territory in accordance with paragraph 6.2.3;
- (b) net positions in an equity for each equity allocated to that country or territory;
- (c) for each net position in an equity allocated to that country or territory, calculate the product of the —
 - (i) absolute value of the current market value of the net position; and
 - (ii) appropriate equity specific position risk factor set out in Table 6-2.

- (d) calculate the equity specific risk requirement of that country or territory as the sum of the product calculated in sub-paragraph (c) for all net positions in equities allocated to that country or territory.

TABLE 6-2: Equity Building Block Method - Equity Specific Position Risk Factors

Type	Equity Position Risk Factor
<ul style="list-style-type: none"> • Qualifying equity index; or • Collective investment scheme (including exchange-traded funds), where investments are restricted to qualifying equity indices 	0%
Other equity, equity index or equity basket	8%

Equity general risk requirement

6.2.12 To calculate the equity general risk requirement for a country or territory, a CMSL shall –

- (a) allocate each gross position in an equity to an appropriate country or territory in accordance with paragraph 6.2.3;
- (b) net positions in all equities allocated to that country or territory, including net positions in different equities; and
- (c) calculate the equity general risk requirement for that country or territory as the sum of –
- (i) the product of the absolute value of the current market value of the net long or short position calculated in accordance with sub-paragraph (b), and the equity general position risk factor of 8%; and
- (ii) where applicable, the product of the net long or short position in a qualifying equity index or collective investment scheme (including exchange-traded funds) where investments are restricted to qualifying equity indices, and a position risk factor of 2%.

Subdivision 2: Equity Derivative Position Risk Requirement

6.2.13 A CMSL shall calculate an equity derivative position risk requirement in accordance with paragraphs 6.2.14 to 6.2.26 for any position in an equity derivative contract, except to the extent that the CMSL is permitted under paragraph 6.2.5 to elect and has elected to calculate an equity position risk requirement for the equity derivative contract.

6.2.14 A CMSL shall use any of the following methods, as applicable, to calculate the equity derivative position risk requirement:

- (a) equity hedging method as set out in paragraph 6.2.16;
- (b) equity margin method as set out in paragraphs 6.2.17 to 6.2.19; or
- (c) equity basic method as set out in paragraphs 6.2.20 to 6.2.23.

6.2.15 The equity derivative position risk requirement of a CMSL shall include the aggregate of the equity derivative position risk requirements calculated in accordance with paragraph 6.2.14.

Equity hedging method

6.2.16 A CMSL may use the equity hedging method, as specified in Table 6F-1 of Annex 6F to calculate an equity derivative position risk requirement in relation to a position in an equity hedging a position in an option on that equity, to the extent that the position in the equity matches the notional position of the equity underlying the option.

Equity margin method

6.2.17 A CMSL may use the equity margin method to calculate an equity derivative position risk requirement for a position in an equity derivative contract traded on any approved exchange or overseas exchange, and that is subject to a positive margin requirement specified by that approved exchange, overseas exchange, or a clearing facility appointed by that approved exchange or overseas exchange.

6.2.18 A CMSL applying the equity margin method shall calculate the equity derivative position risk requirement —

- (a) in the case of an equity derivative contract traded on an approved exchange or a recognised exchange, as 2 times the margin specified by the approved exchange, designated clearing house, recognised exchange, or a clearing facility appointed by the recognised exchange (as the case may be); and
- (b) in the case of an equity derivative contract traded on any other exchange, as 3 times the margin specified by the exchange or a clearing facility appointed by the exchange.

6.2.19 For the purposes of paragraph 6.2.18, “margin”, in a case where margin requirements for positions in equity derivative contracts are calculated on a net basis, means the net margin so calculated.

Equity basic method

6.2.20 A CMSL may use the equity basic method to calculate an equity derivative position risk requirement for a position in a warrant, forward contract, futures contract, swap, CFD, option or a synthetic long or short position in relation to an equity position.

6.2.21 Subject to paragraphs 6.2.22 and 6.2.23, a CMSL applying the equity basic method shall calculate the equity derivative position risk requirement as the product of —

- (a) the absolute value of the current market value of the notional position calculated in accordance with paragraph 6.2.6; and
- (b) the appropriate equity standard method position risk factor set out in Table 6-1.

6.2.22 In the case of a warrant or purchased option, a CMSL may restrict the equity derivative position risk requirement calculated in accordance with paragraph 6.2.21 to the current market value of the warrant or option, respectively.

6.2.23 A CMSL shall adjust the equity derivative position risk requirement for a written option calculated in paragraph 6.2.21 by deducting an amount equal to —

- (a) any positive excess of the exercise value over the current market value of the underlying equity, in the case of a call option; or

- (b) any positive excess of the current market value of the underlying equity over the exercise value, in the case of a put option,

restricted to an adjusted equity derivative position risk requirement of no less than zero.

Interest rate add-on for equity derivative contracts

6.2.24 A CMSL shall calculate a position risk requirement to cover the interest rate risk in a position in an equity derivative contract (whether or not the equity derivative contract has been treated or included as an equity position or equity derivative position), by applying one of the following 2 approaches to a notional position in a debt security derived in accordance with paragraph 6.2.25:

- (a) calculate an interest rate position risk requirement using the interest rate add-on basic method as set out in paragraph 6.2.26, and include this in its equity derivative position risk requirement; or
- (b) include the notional position in the calculation of its debt position risk requirement .

6.2.25 For each position in an equity derivative contract, a CMSL shall derive a notional position in zero coupon government securities in the currency concerned, which —

- (a) shall have a residual maturity equal to the period up to the expiry of the equity derivative contract;
- (b) shall be of a value equal to the current market value of the underlying equity; and
- (c) shall be either —
 - (i) a long position, in a case where the underlying equity position is a short position; or
 - (ii) a short position, in a case where the underlying equity position is a long position.

Interest rate add-on basic method

6.2.26 A CMSL shall calculate an interest rate position risk requirement for each notional position as the product of —

- (a) the absolute value of the notional position in zero coupon government securities; and
- (b) the appropriate interest rate position risk factor under Table 6E-1 of Annex 6E.

Subdivision 3: Debt Position Risk Requirement

6.2.27 A CMSL shall calculate a debt position risk requirement in accordance with paragraphs 6.2.28 to 6.2.41 for any position it holds as a principal in the following debt instruments:

- (a) a debt security, except a debt position hedging an option to the extent that the nominal amount of the debt position is matched by the nominal amount of the debt security underlying the option, which the CMSL shall include in the calculation of its debt derivative position risk requirement;

- (b) a non-convertible preference share; and
- (c) any other instrument that has interest rate position risk.

Currency

6.2.28 For the purposes of paragraph 6.2.27, a CMSL shall allocate each debt position to an appropriate currency portfolio, and calculate the debt position risk requirement on a currency portfolio by currency portfolio basis.

Convertible financial instrument

6.2.29 For the purposes of paragraph 6.2.27, a CMSL shall include a convertible financial instrument in the calculation of its debt position risk requirement, except where the convertible financial instrument is one that meets the conditions in paragraph 6.2.1(c) or where the CMSL is permitted under paragraph 6.2.4 to elect and has elected to calculate an equity position risk requirement for the convertible financial instrument.

Inclusion of debt derivative contracts

6.2.30 For the purposes of paragraph 6.2.27, a CMSL may include any position it holds as a principal in the following debt derivative contracts:

- (a) a futures contract or forward contract on a debt security, basket or index of debt securities;
- (b) an interest rate futures contract or a forward rate agreement;
- (c) an interest rate swap;
- (d) an option on a debt security, or an interest rate, provided that the option is in the money by at least the appropriate standard method position risk factor for the underlying debt security;
- (e) an option on a futures contract or forward contract on a debt security, or an interest rate, provided that the option is in the money by at least the appropriate standard method position risk factor for the underlying debt position;
- (f) an option on a swap, provided that the option is in the money by at least the appropriate standard method position risk factor for the underlying debt position;
- (g) a warrant or an option on a debt security, basket or index of debt securities, provided that the warrant or option is in the money by at least the standard method position risk factor for the underlying debt position; and
- (h) a credit derivative contract that the CMSL holds to hedge against a position for which the CMSL is calculating a debt position risk requirement, and where at least one of the sub-paragraphs of paragraph 2.4 of Annex 6B apply.

6.2.31 For the purpose of including a position in a debt derivative contract in the calculation of its debt position risk requirement, a CMSL shall derive the notional position of the debt derivative contract in accordance with Annex 6A.

Methods to calculate debt position risk requirement

6.2.32 A CMSL shall use either of the following methods to calculate the debt position risk requirement:

- (a) debt standard method as set out in paragraph 6.2.34;
- (b) debt building block method as set out in paragraphs 6.2.35 to 6.2.41.

6.2.33 The debt position risk requirement of a CMSL referred to in paragraph 6.1.3(c) shall be the aggregate of the debt position risk requirements calculated in accordance with paragraph 6.2.32.

Debt standard method

6.2.34 A CMSL applying the debt standard method shall calculate its debt position risk requirement by carrying out the following steps:

- (a) allocate each gross position to an appropriate currency portfolio, in accordance with paragraph 6.2.28, and determine its net position in each debt security;
- (b) calculate a debt position risk requirement for each net position, as the product of the absolute value of the current market value of the debt security and the appropriate standard method debt position risk factor as set out in Table 6D-1 of Annex 6D;
- (c) calculate the debt position risk requirement for each currency portfolio, as the aggregate of the debt position risk requirements for all net positions in debt securities in the currency portfolio; and
- (d) calculate the debt position risk requirement of the CMSL, as the aggregate of the debt position risk requirements calculated in accordance with sub-paragraph (c) for all currency portfolios.

Debt building block method

6.2.35 A CMSL applying the debt building block method shall calculate its debt position risk requirement by carrying out the following steps:

- (a) calculate the debt position risk requirement for each currency portfolio, as the sum of the debt specific risk requirement calculated in accordance with paragraphs 6.2.36 and 6.2.37, and the debt general risk requirement calculated in accordance with paragraph 6.2.38; and
- (b) calculate the debt position risk requirement of the CMSL, as the aggregate of the debt position risk requirements calculated in sub-paragraph (a) for all currency portfolios.

Debt specific risk requirement

6.2.36 To calculate the debt specific risk requirement for a currency portfolio, a CMSL shall –

- (a) in the case of a credit derivative contract and its hedged position for which a CMSL has applied an offset pursuant to paragraph 2.4 of Annex 6B, multiply the current market value of the resulting net position (ignoring the sign) by the appropriate debt specific position risk factor as set out in Table 6D-2 of Annex 6D; and
- (b) in all other cases -
 - (i) allocate each gross position in debt securities to an appropriate currency portfolio in accordance with paragraph 6.2.28;

- (ii) net long and short positions in each debt security allocated to that currency portfolio;
- (iii) calculate, for each net position in a currency portfolio, the product of —
 - (A) the absolute value of the current market value of the net position; and
 - (B) the appropriate debt specific position risk factor set out in Table 6D-2 of Annex 6D ; and
- (iv) calculate the debt specific risk requirement as the aggregate of the product calculated in sub-paragraph (iii) for all net positions in that currency portfolio.

6.2.37 A CMSL shall not apply paragraph 6.2.36(a) for the purpose of calculating a debt specific risk requirement if none of the conditions set out in paragraph 2.4 of Annex 6B apply to the CMSL.

Debt general risk requirement

6.2.38 To calculate the debt general risk requirement for a currency portfolio, a CMSL shall —

- (a) allocate each gross position in debt securities to an appropriate currency portfolio in accordance with paragraph 6.2.28;
- (b) net long and short positions in each debt securities allocated to that currency portfolio; and
- (c) apply the maturity method or, where the CMSL is permitted under paragraph 6.2.40 to elect and has elected to, the duration method, to calculate the debt general risk requirement for that currency portfolio.

Maturity method

6.2.39 For the purpose of calculating the debt general risk requirement for a currency portfolio under the maturity method, a CMSL shall —

- (a) allocate each net position in debt securities in that currency portfolio into an appropriate maturity band according to the residual maturity and coupon of the debt securities in accordance with Table 6D-3 of Annex 6D;
- (b) for each maturity band, calculate the total gross long positions as the aggregate of all long positions in the maturity band, and calculate the total gross short position as the aggregate of all short positions in the maturity band;
- (c) for each maturity band, calculate the risk-weighted long position as the product of the total gross long position and the appropriate maturity band general position risk factor as set out in Table 6D-3 of Annex 6D; and calculate the risk-weighted short position as the product of the total gross short position and the appropriate maturity band general position risk factor as set out in Table 6D-3 of Annex 6D;
- (d) for each maturity band, calculate the net position requirement as the absolute value of the aggregate of the risk-weighted long position and risk-weighted short position;

- (e) calculate the maturity band requirement, as follows:
- (i) for each maturity band, calculate the maturity band matched amount, being the absolute value of the lesser of the risk-weighted long or short positions;
 - (ii) for each maturity band, calculate the product of the maturity band matched amount and the appropriate maturity band matching factor as set out in Table 6D-5 of Annex 6D; and
 - (iii) aggregate the product calculated in sub-paragraph (ii) for all maturity bands;
- (f) calculate the zone requirement, as follows:
- (i) for each zone, calculate the zone matched amount, as the absolute value of the lesser of the aggregate of all risk-weighted long positions of maturity bands in that zone, and the aggregate of all risk-weighted short positions of maturity bands in that zone;
 - (ii) for each zone, calculate the product of the zone matched amount and the appropriate zone matching factor; and
 - (iii) aggregate the product calculated in sub-paragraph (ii) for all zones;
- (g) calculate the adjacent zone requirement, as follows:
- (i) for each zone, calculate the zone unmatched amount as the net of the aggregate of all risk-weighted long positions of maturity bands in that zone, and the aggregate of all risk-weighted short positions in that zone;
 - (ii) for a first pair of adjacent zones, to the extent that an offset can be made, calculate the "adjacent zone matched amount" as the absolute value of the lesser of the 2 zone unmatched amounts of the 2 adjacent time zones;
 - (iii) calculate the product of the adjacent zone matched amount and the appropriate adjacent zone matching factor as set out in Table 6D-5 of Annex 6D;
 - (iv) calculate the net amount of the 2 offsetting zone unmatched amounts of the first pair of adjacent zones and allocate this to one of the 2 zones;
 - (v) for the second pair of adjacent zones, to the extent that there are zone unmatched amounts that can be offset, repeat the steps in sub-paragraphs (ii) and (iii), and continue to carry out the step in sub-paragraph (vi);
 - (vi) calculate the net amount of the 2 offsetting zone unmatched amounts of the second pair of adjacent zones, and allocate this to one of the 2 adjacent zones; and

- (vii) aggregate the product calculated in accordance with sub-paragraph (iii) for the 2 pairs of adjacent zones;
- (h) to the extent that there are unmatched amounts in non-adjacent zones after sub-paragraph (g) and an offset can be made, calculate a non-adjacent zone requirement, as follows:
 - (i) calculate the non-adjacent zone matched amount as the absolute value of the lesser of the non-adjacent zone unmatched amounts; and
 - (ii) calculate the product of the non-adjacent zone matched amount and the appropriate non-adjacent zone matching factor as set out in Table 6D-5 of Annex 6D;
- (i) calculate the debt general risk requirement as the aggregate of the —
 - (i) net position requirement;
 - (ii) maturity band requirement;
 - (iii) zone requirement;
 - (iv) adjacent zone requirement; and
 - (v) non-adjacent zone requirement,
 as determined in sub-paragraphs (d) to (h).

Duration method

6.2.40 A CMSL may apply the duration method to calculate its debt general risk requirement provided it has received the prior written approval of the Authority.

6.2.41 For the purpose of calculating the debt general risk requirement of a currency portfolio under the duration method, a CMSL shall apply the steps in paragraph 6.2.39, as modified in the following manner:

- (a) instead of the risk-weighted net position in paragraph 6.2.39(c), the CMSL shall calculate the duration weight of each position, as the product of the current market value of a position, modified duration of the position, and duration method debt general position risk factor as set out in Table 6D-4 of Annex 6D, where modified duration is calculated in accordance with the formula below:

$$\text{Modified duration} = \frac{\text{Duration (D)}}{(1+r)}$$

$$D = \frac{\sum_{t=1}^m \frac{(t \times C_t)}{(1+r)^t}}{\sum_{t=1}^m \frac{C_t}{(1+r)^t}}$$

where –

r = yield to maturity;

C_t = cash payment in time t;

m = total residual maturity;

(b) any reference to residual maturity in paragraph 6.2.39 shall be read as a reference to duration; and

(c) any reference to matching factor in paragraph 6.2.39 shall be read as a reference to the matching factor in the duration method.

Subdivision 4: Debt Derivative Position Risk Requirement

6.2.42 A CMSL shall calculate a debt derivative position risk requirement in accordance with paragraphs 6.2.43 to 6.2.52 for any position in a debt derivative contract, except to the extent that the CMSL is permitted under paragraph 6.2.30 to elect and has elected to calculate a debt position risk requirement for the debt derivative contract.

6.2.43 A CMSL shall use any of the following methods, as applicable, to calculate the debt derivative position risk requirement:

(a) debt hedging method as set out in paragraph 6.2.45;

(b) debt margin method as set out in paragraphs 6.2.46 to 6.2.48; and

(c) debt basic method as set out in paragraphs 6.2.49 to 6.2.52.

6.2.44 The debt derivative position risk requirement of a CMSL referred to in paragraph 6.1.3(d) shall be the aggregate of the debt derivative position risk requirements calculated in accordance with paragraph 6.2.43.

Debt hedging method

6.2.45 A CMSL may use the debt hedging method specified in Table 6F-1 of Annex 6F to calculate a debt derivative position risk requirement in relation to a position in a debt security hedging a position in an option on that debt security, to the extent that the position in the debt security matches the notional position in the debt security underlying the option.

Debt margin method

6.2.46 A CMSL may use the debt margin method to calculate a debt derivative position risk requirement for a position in a debt derivative contract traded on any approved exchange or overseas exchange, and that is subject to a positive margin requirement specified by that approved exchange, overseas exchange, or a clearing facility appointed by that approved exchange or overseas exchange.

6.2.47 A CMSL applying the debt margin method shall calculate the debt derivative position risk requirement —

(a) in the case of a debt derivative contract traded on an approved exchange or a recognised exchange, as 2 times the margin specified by the approved exchange, designated clearing house, recognised exchange, or a clearing facility appointed by the recognised exchange (as the case may be); and

(b) in the case of a debt derivative contract traded on any other exchange, as 3 times that of the margin specified by the exchange or a clearing facility appointed by the exchange.

6.2.48 For the purposes of paragraph 6.2.47, "margin", in a case where margin requirements for positions in debt derivative contracts are calculated on a net basis, means the net margin so calculated.

Debt basic method

6.2.49 A CMSL may use the debt basic method to calculate a debt derivative position risk requirement for a position in a warrant, forward contract, futures contract, swap and option in relation to a debt position or an interest rate.

6.2.50 Subject to paragraphs 6.2.51 and 6.2.52, a CMSL applying the debt basic method shall calculate the debt derivative position risk requirement as the product of —

- (a) the absolute value of the current market value of the notional position calculated in accordance with paragraph 6.2.31; and
- (b) the appropriate debt standard method position risk factor set out in Table 6D-1 of Annex 6D.

6.2.51 In the case of a warrant or purchased option, a CMSL may restrict the debt derivative position risk requirement calculated in accordance with paragraph 6.2.50 to the current market value of the warrant or option, respectively.

6.2.52 A CMSL shall adjust the debt derivative position risk requirement for a written option calculated in accordance with paragraph 6.2.50 by deducting an amount equal to —

- (a) any positive excess of the exercise value over the current market value of the underlying debt securities, in the case of a call option; or
- (b) any positive excess of the current market value of the underlying debt securities over the exercise value, in the case of a put option,

restricted to an adjusted debt derivative position risk requirement of no less than zero.

Subdivision 5: Commodity Position Risk Requirement

6.2.53 A CMSL shall calculate a commodity position risk requirement in accordance with paragraphs 6.2.54 to 6.2.62 and paragraphs 6.2.74 to 6.2.76 for any position it holds as a principal in any physical commodity or any other instrument that has commodity position risk except gold, and where permitted under paragraph 6.2.57, a position it holds as a principal in a physical commodity derivative contract except a gold derivative contract.

6.2.54 For the purpose of calculating its commodity position risk requirement, a CMSL shall —

- (a) express any position in terms of the standard unit of measurement for that position;
- (b) value any position at the current spot price of the physical commodity, converted to the reporting currency of the CMSL; and
- (c) group all its physical commodity positions on a commodity-by-commodity basis, including notional positions in the relevant physical commodity arising from its positions in physical commodity derivative contracts calculated in accordance with paragraph 6.2.58.

6.2.55 For the purposes of paragraph 6.2.54, a CMSL shall not treat different brands or grades of the same physical commodity as the same physical commodity unless they —

- (a) can be delivered against each other; or

- (b) are close substitutes of each other and have price movements which have exhibited a stable correlation coefficient of at least 0.9 over the last 12 months. The CMSL shall then monitor the correlation coefficient to ensure that it remains at 0.9 on a continuing basis.

6.2.56 A CMSL that intends to rely on the approach in paragraph 6.2.55(b) shall obtain the prior approval of Authority.

Inclusion of commodity derivative contracts

6.2.57 For the purposes of paragraph 6.2.53, a CMSL may include any position it holds as a principal in the following physical commodity derivative contracts:

- (a) a futures contract, forward or a CFD on a physical commodity;
- (b) a commitment to buy or sell a single physical commodity at an average of spot prices prevailing in the future;
- (c) a futures contract or a CFD on a physical commodity index;
- (d) a physical commodity swap; and
- (e) a warrant or an option on a physical commodity or physical commodity index provided that the warrant or option is in the money by at least the commodity net position risk factor.

6.2.58 For the purpose of including a position in a physical commodity derivative contract in the calculation of its commodity position risk requirement, a CMSL shall derive the notional position of the physical commodity derivative contract in accordance with Annex 6A.

Methods to calculate commodity position risk requirement

6.2.59 A CMSL shall use either of the following methods to calculate the commodity position risk requirement:

- (a) commodity standard method as set out in paragraph 6.2.61; or
- (b) commodity maturity ladder method as set out in paragraph 6.2.62.

6.2.60 The commodity position risk requirement of a CMSL shall include the aggregate of the commodity position risk requirement calculated in accordance with paragraph 6.2.59.

Commodity standard method

6.2.61 A CMSL applying the commodity standard method shall calculate the commodity position risk requirement for each physical commodity as the aggregate of —

- (a) the product of —
 - (i) the net position, being the absolute value of the aggregate of the long and short positions, preserving the signs; and
 - (ii) the commodity net position risk factor of 15%; and
- (b) the product of —
 - (i) the gross position, being the aggregate of —

- (A) the absolute value of the aggregate of the long positions; and
 - (B) the absolute value of the aggregate of the short positions; and
- (ii) the commodity gross position risk factor of 3%.

Commodity maturity ladder method

6.2.62 A CMSL applying the commodity maturity ladder method shall calculate the commodity position risk requirement for each physical commodity by –

- (a) offsetting long and short positions maturing –
 - (i) on the same day; or
 - (ii) in the case of positions arising under contracts traded in markets with daily delivery dates, within 10 business days of each other;
- (b) allocating the positions remaining to the appropriate maturity time-bands as follows:
 - (i) up to 1 month²⁹;
 - (ii) more than 1 month but not more than 3 months;
 - (iii) more than 3 months but not more than 6 months;
 - (iv) more than 6 months but not more than 12 months;
 - (v) more than 1 year but not more than 2 years;
 - (vi) more than 2 years but not more than 3 years; and
 - (vii) more than 3 years;
- (c) matching long and short positions within each time-band. In each instance, calculating a spread charge equal to the sum of long and short positions matched multiplied by the spread rate of 1.5%;
- (d) carrying unmatched positions remaining to another time-band where they can be matched, then matching them until all matching possibilities are exhausted. In each instance, calculating –
 - (i) a carry charge equal to the carried position multiplied by the carry rate of 0.6% and the number of time-bands by which the position is carried; and
 - (ii) a spread charge equal to each long and short position matched multiplied by the spread rate of 1.5%;
- (e) calculating the outright charge on the remaining positions (which will either be all long positions or all short positions) equal to the sum of the remaining positions (ignoring the sign) multiplied by the outright rate of 15%; and

²⁹ Spot positions are allocated to this time-band.

- (f) summing the spread charges, carry charge and outright charge calculated in sub-paragraphs (c) to (e) above.

Subdivision 6: Commodity Derivative Position Risk Requirement

6.2.63 A CMSL shall calculate a commodity derivative position risk requirement in accordance with paragraphs 6.2.64 to 6.2.76 for any position in a physical commodity derivative contract (other than a derivative contract on gold or a financial instrument), except to the extent that the CMSL is permitted under paragraph 6.2.57 to elect and has elected to calculate a commodity position risk requirement for the physical commodity derivative contract.

6.2.64 A CMSL shall use any of the following methods, where applicable, to calculate the commodity derivative position risk requirement:

- (a) commodity hedging method set out in paragraph 6.2.66;
- (b) commodity margin method set out in paragraphs 6.2.67 to 6.2.69; or
- (c) commodity basic method set out in paragraphs 6.2.70 to 6.2.73.

6.2.65 The commodity derivative position risk requirement of a CMSL shall include the aggregate of the commodity derivative position risk requirements calculated in accordance with paragraph 6.2.64.

Commodity hedging method

6.2.66 A CMSL may use the commodity hedging method specified in Table 6F-1 of Annex 6F to calculate a commodity derivative position risk requirement in relation to a position in a physical commodity hedging a position in an option on that physical commodity, to the extent that the position in the physical commodity matches the notional position in the physical commodity underlying the option.

Commodity margin method

6.2.67 A CMSL may use the commodity margin method to calculate a commodity derivative position risk requirement for a position in a physical commodity derivative contract traded on any approved exchange or overseas exchange, and that is subject to a positive margin requirement specified by that approved exchange, overseas exchange, or a clearing facility appointed by that approved exchange or overseas exchange.

6.2.68 A CMSL applying the commodity margin method shall calculate the commodity derivative position risk requirement —

- (a) in the case of a physical commodity derivative contract traded on an approved exchange or a recognised exchange, as 2 times that of the margin specified by the approved exchange, the recognised exchange, or a clearing facility appointed by the approved exchange or the recognised exchange (as the case may be); and
- (b) in the case of a physical commodity derivative contract traded on any other exchange, as 3 times that of the margin specified by the exchange or a clearing facility appointed by the exchange.

6.2.69 For the purposes of paragraph 6.2.68, "margin", in a case where margin requirements for positions in physical commodity contracts are calculated on a net basis, means the net margin so calculated.

Commodity basic method

6.2.70 A CMSL may use the commodity basic method to calculate a commodity derivative position risk requirement for a position in a warrant, forward contract, futures contract, swap, CFD and option in relation to a position in a physical commodity.

6.2.71 Subject to paragraphs 6.2.72 and 6.2.73, a CMSL applying the commodity basic method shall calculate the commodity derivative position risk requirement as the aggregate of —

- (a) the product of –
 - (i) the absolute value of the current market value of the notional position calculated in accordance with paragraph 6.2.58; and
 - (ii) the commodity derivative net position risk factor of 15%; and
- (b) the product of –
 - (i) the gross position, being the aggregate of –
 - (A) the absolute value of the aggregate of the long positions; and
 - (B) the absolute value of the aggregate of the short positions; and
 - (ii) the commodity derivative gross position risk factor of 3%.

6.2.72 In the case of a warrant or purchased option, a CMSL may restrict the commodity derivative position risk requirement calculated in accordance with paragraph 6.2.71 to the current market value of the warrant or option, respectively.

6.2.73 A CMSL shall adjust the commodity derivative position risk requirement for a written option calculated in accordance with paragraph 6.2.71 by deducting an amount equal to —

- (a) any positive excess of the exercise value over the current market value of the underlying physical commodity, in the case of a call option; or
- (b) any positive excess of the current market value of the underlying physical commodity over the exercise value, in the case of a put option,

restricted to an adjusted commodity derivative position risk requirement of no less than zero.

Interest rate add-on for commodity derivative contracts

6.2.74 A CMSL shall calculate a position risk requirement to cover the interest rate risk in a position in a physical commodity derivative contract (whether or not the physical commodity derivative contract has been treated or included as a position in a physical commodity or position in a physical commodity derivative) by applying one of the following 2 approaches to a notional position in a debt security derived in accordance with paragraph 6.2.75:

- (a) calculate an interest rate position risk requirement using the interest rate add-on basic method set out in paragraph 6.2.76, and include this in its commodity derivative position risk requirement; or

- (b) include the notional position in the calculation of its debt position risk requirement.

6.2.75 For each position in a physical commodity derivative contract, a CMSL shall derive a notional position in zero coupon government securities in the currency concerned, which —

- (a) shall have a residual maturity equal to the period up to the expiry of the physical commodity derivative contract;
- (b) shall be of a value equal to the current market value of the underlying physical commodity; and
- (c) shall be either —
 - (i) a long position, in a case where the underlying position in a physical commodity is a short position; or
 - (ii) a short position, in a case where the underlying position in a physical commodity is a long position.

Interest rate add-on basic method

6.2.76 A CMSL shall calculate an interest rate position risk requirement for each notional position as the product of —

- (a) the absolute value of notional government securities; and
- (b) the appropriate interest rate position risk factor under Table 6E-1 of Annex 6E.

Subdivision 7: Foreign Exchange Risk Requirement

6.2.77 A CMSL shall calculate a foreign exchange risk requirement in accordance with paragraphs 6.2.78 to 6.2.85 for its positions in foreign currencies and gold.

Net open position in each foreign currency

6.2.78 Subject to paragraph 6.2.79, a CMSL shall calculate for each foreign currency, its net position in the foreign currency as the aggregate of the following:

- (a) net spot position, being the amount of all assets less all liabilities denominated in the foreign currency, and including options denominated in the foreign currency;
- (b) the aggregate of amounts in the foreign currency to be received by the CMSL less the aggregate of amounts in the foreign currency to be paid by the CMSL in relation to foreign currency positions arising from any futures contract or forward contract, including a forward contract associated with cross-currency swaps or other derivative contracts;
- (c) net positions in products denominated in the foreign currency in relation to any non-foreign currency futures contract, forward contract and other derivative contracts;
- (d) net underwriting positions in securities denominated in the foreign currency which are unplaced, unsold or unallotted from the day the underwriting

arrangement ends, being a day no later than the day after allotment of or close of applications for subscription for securities, whichever is the later; and

- (e) any other off-balance sheet commitment that would result in an asset or liability that is denominated in the foreign currency,

but does not include —

- (i) at the election of the CMSL, any asset deducted from the financial resources of the CMSL;
- (ii) any asset or exposure for which the CMSL has calculated a risk requirement equal to 100% of the value of the asset or the full contract value, as appropriate, under this Division; and
- (iii) any position the CMSL holds to hedge against a foreign currency position referred to in sub-paragraph (i) or (ii) where the hedging contract is clearly earmarked as a hedge, to the extent that the nominal amount underlying each hedging contract matches the nominal amount of the contract being hedged.

6.2.79 A CMSL shall include a warrant, forward contract (including a forward contract associated with a cross-currency swap), futures contract, swap, CFD or option on a foreign currency in the calculation of a net open position in the foreign currency, and shall derive the notional position in accordance with Annex 6A.

6.2.80 A CMSL shall convert its net open position in each foreign currency to the reporting currency of the CMSL (preserving the sign) at the prevailing market spot rate.

Net currency open position

6.2.81 A CMSL shall calculate its net currency open position as the higher of the absolute value of —

- (a) the aggregate of net short foreign currency positions; or
- (b) the aggregate of net long foreign currency positions.

Net gold open position

6.2.82 A CMSL shall calculate its net gold open position as the absolute value of the aggregate of the following:

- (a) net spot gold positions, including options on gold;
- (b) the aggregate of all amounts to be received less the aggregate of all amounts to be paid under gold derivative contracts; and
- (c) any other off-balance sheet commitment that would result in an asset or liability that is denominated in gold,

converted into the reporting currency of the CMSL at the prevailing market spot rate.

Overall net foreign exchange position

6.2.83 A CMSL shall calculate its overall net FX position as the aggregate of its net currency open position calculated in accordance with paragraph 6.2.81 and its net gold open position calculated in accordance with paragraph 6.2.82.

Calculation of foreign exchange risk requirement

6.2.84 Subject to paragraph 6.2.85, a CMSL shall calculate its foreign exchange risk requirement as the product of —

- (a) the overall net foreign exchange position calculated in paragraph 6.2.83; and
- (b) the foreign exchange position risk factor of 8%.

6.2.85 The foreign exchange risk requirement of a CMSL shall be zero if the overall net foreign exchange position of the CMSL is not greater than 2% of the financial resources of the CMSL.

Subdivision 8: Other Position Risk Requirement

6.2.86 A CMSL licensed only to carry out fund management or real estate investment trust management shall calculate its position risk requirement for any fixed asset, as the product of the higher of the current market value or book value of the asset and a position risk factor of 50%.

6.2.87 Where a CMSL acquires or holds a position as a principal in any securities, futures contract, forward contract, physical commodity, derivative contract on a physical commodity, foreign exchange contract, any other financial instrument, or any other non-financial assets other than fixed assets, for which no method for computation of a position risk requirement has been specified in this Part, except where the CMSL has deducted the asset from its financial resources under paragraph 3.1.1 of Part III, the CMSL shall —

- (a) immediately consult the Authority and the approved exchange or designated clearing house of which the CMSL is a member (if applicable); and
- (b) until otherwise directed by the Authority, calculate an appropriate position risk requirement for the position, which shall be either —
 - (i) 100% of the current market value of the position; or
 - (ii) a percentage of the current market value of the non-standard instrument or asset, or a method of computation as the Authority may allow.

DERIVATION OF NOTIONAL POSITIONS FOR EQUITY, DEBT, COMMODITIES AND FOREIGN EXCHANGE DERIVATIVE CONTRACTS

1 Derivation of Notional Positions for Equity Derivative Contracts

Depository Receipts

1.1 A CMSL should treat a depository receipt as a notional position in the underlying equity.

Convertible Financial Instruments

1.2 Where a CMSL includes a convertible financial instrument in the equity position risk calculation, it should –

- (a) treat the convertible financial instrument as a notional position in the equity into which it converts; and
- (b) adjust its equity position risk by making –
 - (i) an addition equal to the current value of any loss which the CMSL would make if it did convert to equity; or
 - (ii) a deduction equal to the current value of any profit which the CMSL would make if it did convert to equity (subject to a maximum reduction equal to the equity position risk on the notional position underlying the convertible financial instrument).

Futures Contracts, Forward Contracts and CFDs on a Single Equity

1.3 A CMSL should treat a futures contract, forward contract or CFD on a single equity as a notional position in that equity.

Futures Contracts, Forward Contracts and CFDs on Equity Indices or Baskets

1.4 A CMSL should treat a futures contract, forward contract or CFD on an equity index or basket as either –

- (a) a notional position in each of the underlying equities with a value reflecting that equity's contribution to the total market value of the equities in the index or basket; or
- (b) if there is –
 - (i) one country in the index or basket, a notional position in the index or basket with a value equal to the total market value of the equities in the index or basket; or
 - (ii) more than one country in the index or basket –
 - (A) several notional basket positions, one for each country basket with a value reflecting that country's contribution to the total market value of the equities in the index or basket; or
 - (B) one notional basket position in a separate, hypothetical country with a value equal to the total market value of the equities in the index or basket.

Equity Swaps

1.5 A CMSL should treat an equity swap where the CMSL is receiving an amount based on the change in value of a single equity or equity index and paying an amount based on the change in value of another equity or equity index as a notional long position in the former and a notional short position in the latter.

Warrants and Options

1.6 A CMSL should treat a purchased (sold) call warrant or option, or sold (purchased) put warrant or option, on an equity position as a notional long (short) position in the underlying equity position.

2 Derivation of Notional Positions for Debt Derivative Contracts

Futures Contracts, Forward Contracts and CFDs on Debt Security

2.1 A CMSL should treat a purchased (sold) futures contract, forward contract or CFD on a single debt security as –

- (a) a notional long (short) position in the underlying debt security (or the “cheapest-to-deliver” security³⁰, taking into account the conversion factor, where the contract can be satisfied by delivery of one from a range of securities); and
- (b) a notional short (long) position in a zero coupon zero-specific-risk security with a residual maturity equal to the expiry date of the futures contract or forward.

Futures Contracts, Forward Contracts and CFDs on a Basket or Index of Debt Securities

2.2 A CMSL should convert a futures contract, forward contract or CFD on a basket or index of debt securities into forward contracts on single debt securities as follows:

- (a) in the case of a single currency basket or index of debt securities –
 - (i) a series of forward contracts, one for each of the constituent debt securities in the basket or index, of an amount which is a proportionate part of the total underlying instruments of the contract according to the weighting of the relevant debt security in the basket or index; or
 - (ii) a single forward contract on a hypothetical debt security; or
- (b) in the case of multiple currency baskets or indices of debt securities –
 - (i) a series of forward contracts (using the method described in sub-paragraph (a)(i) above); or
 - (ii) a series of forward contracts, each one on a hypothetical debt security to represent one of the currencies in the basket or index, of an amount which is a proportionate part of the total underlying instruments of the contract according to the weighting of the relevant currency in the basket or index,

and treat the resulting positions according to paragraph 2.1.

³⁰ The “cheapest-to-deliver” security shall be readily identifiable and most profitable for the CMSL to deliver.

2.3 A CMSL should assign the hypothetical debt security in paragraph 2.2(a)(ii) a specific risk charge and a general market risk charge equal to the highest that would apply to the debt securities in the basket or index, even if they relate to different debt securities and regardless of the proportion of those debt securities in the basket or index.

Interest Rate Futures and Forward Rate Agreements

2.4 A CMSL should treat a short (long) interest rate futures contract or a long (short) forward rate agreement as –

- (a) a notional short (long) position in a zero coupon zero-specific-risk security with a residual maturity equal to the sum of the period to expiry of the futures contract or settlement date of the forward rate agreement and the maturity of the borrowing or deposit; and
- (b) a notional long (short) position in a zero coupon zero-specific-risk security with maturity equal to the period to expiry of the futures contract or settlement date of the forward rate agreement.

Interest Rate Swaps or Foreign Exchange Swaps

2.5 A CMSL should treat interest rate swaps or foreign exchange swaps³¹ as two notional positions as follows –

	Notional position 1	Notional position 2
CMSL receives fixed and pays floating	A short position in a zero-specific-risk security with a coupon equal to the floating rate and a residual maturity equal to the reset date.	A long position in a zero-specific-risk security with a coupon equal to the fixed rate of the swap and a residual maturity equal to the residual maturity of the swap.
CMSL receives floating and pays fixed	A short position in a zero-specific-risk security with a coupon equal to the fixed rate of the swap and a residual maturity equal to the residual maturity of the swap.	A long position in a zero-specific-risk security with a coupon equal to the floating rate and a residual maturity equal to the reset date.
CMSL receives and pays floating	A short position in a zero-specific-risk security with a coupon equal to the floating rate and a residual maturity equal to the reset date.	A short position in a zero-specific-risk security with a coupon equal to the floating rate and a residual maturity equal to the reset date.

Warrants and Options

2.6 A CMSL should treat a purchased (sold) call warrant or option, or sold (purchased) put warrant or option, on a debt position as a notional long (short) position in the underlying debt position.

2.7 A CMSL should treat an option on an interest rate as a notional position in zero coupon government securities as follows:

- (a) as a long (short) position, in the case of a purchased (sold) call option or a sold (purchased) put option;
- (b) of a value equal to the nominal value of the option; and
- (c) which has a residual maturity equal to the sum of the period until the expiry of the option and the period for which the interest rate is fixed.

³¹ For a foreign exchange swap, the two notional zero-specific-risk securities would be denominated in different currencies.

2.8 A CMSL should treat an option on a futures contract or forward contract on a debt security or on a basket or index of debt securities as a notional position in the underlying futures contract or forward contract.

2.9 A CMSL should treat an option on an interest rate futures contract or a forward rate agreement as a notional position in the underlying interest rate futures contract or forward rate agreement.

3 Derivation of Notional Positions for Physical Commodity Derivative Contracts

Futures Contracts, Forward Contracts and CFDs on a Single Physical Commodity

3.1 A CMSL should treat a futures contract, forward contract or CFD on a single physical commodity which settles according to the difference between the price set on trade date and that prevailing at the maturity date of the contract as a notional position equal to the total quantity of the physical commodity underlying the contract that has a maturity equal to the expiry date of the contract.

Commitment to Buy or Sell a Single Physical Commodity at an Average of Spot Prices Prevailing in the Future

3.2 A CMSL should treat a commitment to buy (sell) at the average spot price of a single physical commodity prevailing over some period between trade date and maturity date as a combination of –

- (a) a long (short) position equal to the total quantity of the physical commodity underlying the contract with a maturity equal to the maturity date of the contract; and
- (b) a series of short (long) notional positions, one for each of the reference dates where the contract price remains unfixed, each of which is a fractional share of the total quantity of the physical commodity underlying the contract and has a maturity equal to the relevant reference date.

Futures Contracts and CFDs on a Commodity Index

3.3 A CMSL should treat a futures contract or CFD on a physical commodity index which settles according to the difference between the price set on trade date and that prevailing at the maturity date of the contract as either –

- (a) a single notional physical commodity position (separate from all other physical commodities) equal to the total quantity of the physical commodities underlying the contract that has a maturity equal to the maturity date of the contract; or
- (b) a series of notional positions, one for each of the constituent physical commodities in the index, each of which is a proportionate part of the total quantity of the physical commodities underlying the contract according to the weighting of the relevant physical commodity in the index and has a maturity equal to the expiry date of the contract.

Commodity Swaps

3.4 A CMSL should treat a physical commodity swap as a series of notional positions, one for each payment under the swap, each of which equals the total quantity of the physical commodity underlying the contract, has a maturity equal to the payment date and is long or short as follows:

	Receiving amounts unrelated to any physical commodity's price	Receiving the price of physical commodity 'b'
Paying amounts unrelated to any physical commodity's price	N.A.	Long positions in physical commodity 'b'
Paying the price of physical commodity 'a'	Short positions in physical commodity 'a'	Short positions in physical commodity 'a' and long positions in physical commodity 'b'

Warrants and Options

3.5. A CMSL should treat a warrant or an option on a physical commodity or commodity index as a notional position equal to the total or principal quantity underlying the contract, warrant or option.

4 Derivation of Notional Positions for Foreign Currency and Gold Derivative Contracts

Foreign Exchange Futures Contracts, Forward Contracts and CFDs

4.1. A CMSL should treat a futures contract, forward contract or CFD on foreign exchange as two notional currency positions:

- (a) a long notional position in the currency which the CMSL has contracted to buy; and
- (b) a short notional position in the currency which the CMSL has contracted to sell,

where each notional position has a value equal to the present value³² of the amount of each currency to be exchanged in the case of a futures contract or forward contract.

Foreign Exchange Swaps

4.2. A CMSL should treat a swap on foreign exchange as –

- (a) a long notional position in the currency which the CMSL has contracted to receive interest and principal; and
- (b) a short notional position in the currency which the CMSL has contracted to pay interest and principal,

where each notional position has a value equal to the present value amount of all cash flows in the relevant currency.

Futures Contracts, Forward Contracts and CFDs on Gold

4.3. A CMSL should treat a futures contract, forward contract or CFD on gold as a notional position in gold with a value equal to the amount of gold underlying the contract multiplied by the current spot price for gold, except in the case of a forward contract where the CMSL, in accordance with industry norms, may use the net present value of each position, discounted using prevailing interest rates and valued at prevailing spot rates.

³² This is normally equal to the amount underlying the contract multiplied by the current spot price, except in the case of a forward contract where the CMSL, in accordance with industry norms, may use the net present value of each position, discounted using prevailing interest rates and valued at prevailing spot rates.

Warrants and Options

4.4. A CMSL should treat a purchased (written) call warrant or option, or a written (purchased) put warrant or option, as a long (short) position in the commodity currency and a short (long) position in the term currency, each of an amount equivalent to the notional face value of the underlying contract.

NETTING REQUIREMENTS FOR POSITION RISK REQUIREMENT

1 Netting Requirements for Equity Position Risk Requirement

1.1 For the purpose of calculating the position risk requirement for its equity positions, a CMSL may net –

- (a) a long position against a short position (including notional positions) in an identical equity³³, equity basket or equity index in the same country portfolio; and
- (b) a matched position in a depository receipt against the corresponding underlying equity or identical equities in different country portfolios provided that any costs of conversion are fully taken into account³⁴.

2 Netting Requirements for Debt Position Risk Requirement

2.1. For the purpose of calculating the debt position risk requirement for a position in a debt security or a notional position in an interest rate or debt-related derivative contract, a CMSL may net -

- (a) a long position against a short position (including notional positions) in an identical issue³⁵; or
- (b) a matched position in a futures contract or forward contract against its corresponding underlying exposures or financial instruments³⁶.

2.2. Where a futures contract or forward contract comprises a range of deliverable debt securities, a CMSL may net a short position in the futures contract or forward contract against a long position in the corresponding “cheapest-to-deliver” underlying security. This netting is permitted only where the CMSL has sold the futures contract or forward contract.

2.3. A CMSL may net opposite positions in the same category of interest rate or debt-related instruments if –

- (a) the positions relate to the same underlying instruments;
- (b) the positions are of the same nominal value; and
- (c) the positions are denominated in the same currency,

and –

- (i) in the case of futures contracts, the offsetting positions in the notional or underlying instrument to which the futures contract relates are for identical products and mature within 7 days of each other;

³³ Two equities are the same if they enjoy the same rights in all respects and are fungible with each other.

³⁴ Any foreign exchange risk arising out of these positions shall be dealt with under foreign exchange position risk requirement.

³⁵ Even though the issuer is the same, no offsetting will be permitted between different issues since differences in coupon rates, liquidity, call features, etc. mean that prices may diverge in the short run.

³⁶ However, the leg representing the time to expiry of the futures contract should be reported.

- (ii) in the case of swaps and forward rate agreements, the reference rates (for floating rate positions) are identical and the coupons are closely matched (i.e. within 15 basis points); and
- (iii) in the case of swaps, forward rate agreements and forward contracts, the next interest fixing date or, for fixed coupon positions or forward contracts, the residual maturity correspond as follows:
 - (A) the same day, if the next interest fixing date or residual maturity is less than one month;
 - (B) within 7 days, if the next interest fixing date or residual maturity is between one month and a year; or
 - (C) within 30 days, if the next interest fixing date or residual maturity is more than a year.

2.4. For the purpose of calculating the debt specific risk requirement for a credit derivative contract and its hedged position, a CMSL may —

- (a) apply a full offset when the values of the two legs always move in opposite directions and broadly to the same extent. This would be the case when —
 - (i) the two legs consist of completely identical instruments; or
 - (ii) a long cash position is hedged by a total rate of return swap (or vice versa) and there is an exact match between the reference obligation and the underlying instrument (i.e. the cash position)³⁷;
- (b) apply an 80% offset to the side of the transaction with the higher debt specific risk requirement and a zero specific risk requirement on the other side when the values of the two legs (i.e. long and short) always move in opposite directions but not broadly to the same extent. This would be the case when —
 - (i) a long cash position is hedged by a credit default swap or a credit linked note (or vice versa);
 - (ii) there is an exact match in terms of —
 - (A) the reference obligation;
 - (B) the residual maturity of both the reference obligation and the credit derivative contract; and
 - (C) the currency of the underlying instrument; and
 - (iii) the key features of the credit derivative contract (e.g. credit event definitions, settlement mechanisms) do not cause the price movement of the credit derivative contract to materially deviate from the price movement of the cash position; and

³⁷ The maturity of the swap itself may be different from that of the underlying instrument

- (c) apply the higher of the two debt specific risk requirements when the values of the two legs (i.e. long and short) usually move in opposite directions. This would be the case when –
- (i) the position would be captured in sub-paragraph (a)(ii) but for an asset mismatch between the reference obligation and the underlying instrument where –
 - (A) the reference obligation ranks *pari passu* with or is junior to the underlying instrument; and
 - (B) the underlying instrument and reference obligation share the same obligor and legally enforceable cross-default or cross acceleration clauses are in place;
 - (ii) the position would be captured in sub-paragraph (a)(i) or (b) but for a currency or residual maturity mismatch between the credit derivative contract and the underlying instrument; or
 - (iii) the position would be captured in sub-paragraph (b) but for an asset mismatch between the cash position and the reference obligation, and the underlying instrument is included in the deliverable obligations in the documentation of the credit derivative contract.

3 Netting Requirements for Commodity Position Risk Requirement

3.1. A CMSL may net the long positions against the short positions in an identical physical commodity for the purposes of computing the net open position.

3.2. Positions in different sub-categories of the same physical commodity shall only be treated as the same physical commodities if the physical commodities meet the conditions set out in paragraph 6.2.55(a) or (b) of Part VI.

QUALIFYING EQUITY INDICES

Country or Territory	Index
Australia	S&P/ASX 200 Index
Canada	S&P/TSX Composite Index
Europe	STOXX Europe 50 Index Euro STOXX 50 Index
France	CAC 40 Index
Germany	DAX Index
Hong Kong	Hang Seng China Enterprises Index Hang Seng Index
Italy	FTSE MIB Index
Japan	Nikkei 225
Malaysia	FTSE Bursa Malaysia KLCI Index
Netherlands	AEX Index
Singapore	MSCI Singapore Free Index FTSE Straits Times Index
South Korea	KOSPI 200 Index
Sweden	OMX Stockholm 30 Index
Taiwan	MSCI Taiwan Index
United Kingdom	FTSE 100 Index
United States of America	S&P 500 Index Dow Jones Industrial Average
Others	Any index approved by the Authority

APPLICABLE RISK FACTORS FOR CALCULATION OF DEBT POSITION RISK FACTORS

Table 6D-1: Debt Standard Method Position Risk Factors

Maturity Band		Debt Position Risk Factor (%)		
Coupon		Government Debt Securities	Qualifying Debt Securities	Other Debt Securities
3% or more	less than 3%			
One month or less	One month or less	0.00	0.25	8.00
More than one month but not more than 3 months	More than one month but not more than 3 months	0.20	0.45	8.20
More than 3 months but not more than 6 months	More than 3 months but not more than 6 months	0.40	0.65	8.40
More than 6 months but not more than 12 months	More than 6 months but not more than 12 months	0.70	1.70	8.70
More than one year but not more than 2 years	More than one year but not more than 1.9 years	1.25	2.25	9.25
More than 2 years but not more than 3 years	More than 1.9 years but not more than 2.8 years	1.75	3.35	9.75
More than 3 years but not more than 4 years	More than 2.8 years but not more than 3.6 years	2.25	3.85	10.25
More than 4 years but not more than 5 years	More than 3.6 years but not more than 4.3 years	2.75	4.35	10.75
More than 5 years but not more than 7 years	More than 4.3 years but not more than 5.7 years	3.25	4.85	11.25
More than 7 years but not more than 10 years	More than 5.7 years but not more than 7.3 years	3.75	5.35	11.75
More than 10 years but not more than 15 years	More than 7.3 years but not more than 9.3 years	4.50	6.10	12.50
More than 15 years but not more than 20 years	More than 9.3 years but not more than 10.6 years	5.25	6.85	13.25

Maturity Band		Debt Position Risk Factor (%)		
Coupon		Government Debt Securities	Qualifying Debt Securities	Other Debt Securities
3% or more	less than 3%			
More than 20 years	More than 10.6 years but not more than 12.0 years	6.00	7.60	14.00
	More than 12.0 years but not more than 20 years	8.00	9.60	16.00
	More than 20 years	12.50	14.10	20.50

Table 6D-2: Debt Building Block Method — Debt Specific Risk Position Risk Factors

Category	Credit quality grade as per Table 5A-1	Residual maturity	Specific Position Risk Factor
Government	1	N.A	0.00%
	2 or 3	6 months or less	0.25%
		More than 6 and up to 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	N.A	6 months or less	0.25%
		More than 6 and up to 24 months	1.00%
		More than 24 months	1.60%
Others	4	N.A	8.00%
	5 or 6	N.A	12.00%
	Unrated	N.A	8.00%

For the purposes of Tables 6D-1 and 6D-2 —

- The “government” category includes –
 - (a) all forms of government-issued securities, including bonds, treasury bills and other short-term instruments; and
 - (b) any securities issued by public sector entities which qualify for a 0% risk weight under Annex 5B.
- The “qualifying” category includes –
 - (a) any securities that is issued by an multilateral agency;
 - (b) any securities (including one issued by a PSE) which has a credit quality grade of “3” or better as set out in Table 5A-1 of Annex 5A³⁸; and
 - (c) any unrated securities issued by a PSE which belongs to a country with a credit quality grade of “1” as set out in Table 5A-1 of Annex 5A.

³⁸ Where a security has more than one external credit assessment and these map into different credit quality grades, paragraph 2 of Annex 5A shall apply.

Table 6D-3: Debt Building Block Method — Maturity Method Debt General Risk Position Risk Factors

Maturity Band		Zone	Debt General Risk Position Risk Factor (%)
More than 3%	Not more than 3%		
Not more than one month	Not more than one month	1	0.00
More than one month but not more than 3 months	More than one month but not more than 3 months		0.20
More than 3 months but not more than 6 months	More than 3 months but not more than 6 months		0.40
More than 6 months but not more than 12 months	More than 6 months but not more than 12 months		0.70
More than one year but not more than 2 years	More than one year but not more than 1.9 years	2	1.25
More than 2 years but not more than 3 years	More than 1.9 years but not more than 2.8 years		1.75
More than 3 years but not more than 4 years	More than 2.8 years but not more than 3.6 years		2.25
More than 4 years but not more than 5 years	More than 3.6 years but not more than 4.3 years	3	2.75
More than 5 years but not more than 7 years	More than 4.3 years but not more than 5.7 years		3.25
More than 7 years but not more than 10 years	More than 5.7 years but not more than 7.3 years		3.75
More than 10 years but not more than 15 years	More than 7.3 years but not more than 9.3 years		4.50
More than 15 years but not more than 20 years	More than 9.3 years but not more than 10.6 years		5.25
More than 20 years	More than 10.6 years but not more than 12.0 years		6.00
	More than 12.0 years but not more than 20 years		8.00
	More than 20 years	12.50	

Table 6D-4: Debt Building Block Method — Duration Method Debt General Risk Position Risk Factors

Modified Duration	Zone	Debt General Risk Position Risk Factor (%)
Not more than one month	1	1.00
More than 1 month but not more than 3 months		1.00
More than 3 months but not more than 6 months		1.00
More than 6 months but not more than 1 year		1.00
More than 1 year but not more than 1.9 years	2	0.90

Modified Duration	Zone	Debt General Risk Position Risk Factor (%)
More than 1.9 years but not more than 2.8 years		0.80
More than 2.8 years but not more than 3.6 years		0.75
More than 3.6 years but not more than 4.3 years	3	0.75
More than 4.3 years but not more than 5.7 years		0.70
More than 5.7 years but not more than 7.3 years		0.65
More than 7.3 years but not more than 9.3 years		0.60
More than 9.3 years but not more than 10.6 years		0.60
More than 10.6 years but not more than 12.0 years		0.60
More than 12.0 years but not more than 20 years		0.60
More than 20 years		0.60

Table 6D-5: Debt Building Block Method — General Risk Requirement Matching Factor For Maturity and Duration Methods

Item	Matching Factor	
	Maturity Method	Duration Method
Maturity Band Matching Factor	10%	5%
Zone Matching Factor (Zone 1)	40%	40%
Zone Matching Factor (Zone 2)	30%	30%
Zone Matching Factor (Zone 3)	30%	30%
Adjacent Zone Matching Factor	40%	40%
Non-adjacent Zone Matching Factor	100%	100%

INTEREST RATE POSITION RISK FACTORS FOR INTEREST RATE ADD-ON BASIC METHOD

Table 6E-1: Interest Rate Position Risk Factors for Interest Rate Add-On Basic Method

Residual Maturity of the Notional Government Securities	Interest Rate Position Risk Factor
3 months or less	0.20%
More than 3 months but not more than 6 months	0.40%
More than 6 months but not more than 12 months	0.70%
More than one year but not more than 2 years	1.25%
More than 2 years but not more than 3 years	1.75%
More than 3 years but not more than 4 years	2.25%
More than 4 years but not more than 5 years	2.75%
More than 5 years but not more than 7 years	3.25%
More than 7 years but not more than 10 years	3.75%
More than 10 years but not more than 15 years	4.50%
More than 15 years but not more than 20 years	5.25%
More than 20 years	6.00%

HEDGING METHOD

Table 6F-1: Hedging Method

Member's securities position	Member's option position	Position Risk Requirement		
		Option is in the money by		Option is out of the money
		<i>Not less than PRF</i>	<i>Less than PRF</i>	
(1) Long securities	(a) Long put	Zero	Wp	X
	(b) Short call	Y	Y	Hedging Method is not Permitted
(2) Short securities	(a) Long call	Zero	Wc	X
	(b) Short put	Y	Y	Hedging Method is not Permitted

In Table 6F-1 —

PRF	is the appropriate Standard Method Position Risk Factor as set out in Table 6-1 and Table 6D-1 of Annex 6D
Wp	is $\{(PRF-1) \times \text{securities position at exercise price}\}$ plus the current market value of underlying securities position
Wc	is $\{(1+PRF) \times \text{securities position at exercise price}\}$ minus the current market value of underlying securities position
X	is the current market value of underlying securities position \times PRF
Y	is the higher of — (a) (current market value of underlying securities position \times PRF) minus the current market value of option; or (b) zero.

For the purposes of calculating the commodity derivative position risk requirement —

- (a) references to securities in Table 6F-1 shall be read as commodities; and
- (b) references to PRF in Table 6F-1 shall be read as the commodity net position risk factor referred to in paragraph 6.2.61(a) of Part VI.

PART VII: OPERATIONAL RISK REQUIREMENT

Overview

7.1.1 A CMSL shall calculate its operational risk requirement in accordance with paragraphs 7.1.2 to 7.1.5, unless otherwise specified by the Authority by notice in writing to the relevant CMSL concerned.

Calculation of the operational risk requirement

7.1.2 A CMSL shall calculate its operational risk requirement as the highest of —

- (a) 10% of its average annual adjusted gross income, calculated in accordance with paragraph 7.1.4, for the last 3 preceding financial years;
- (b) 5% of its average annual gross income for the last 3 preceding financial years of the holder; or
- (c) \$100,000.

7.1.3 For the purposes of paragraphs 7.1.2 to 7.1.5, the annual gross income for a financial year of a CMSL is the total revenue of the CMSL as stated in the annual statement lodged by the CMSL in Form 6 of the Regulations for the same financial year, adjusted by excluding the following:

- (a) any realised or unrealised profits or losses arising from the sale or revaluation of financial assets in that financial year that are classified as “held to maturity” or “available for sale”;
- (b) any income or expense item not derived from the ordinary activities of the CMSL in that financial year and not expected to recur frequently or regularly; and
- (c) any income derived from any insurance recoveries in that financial year.

7.1.4 For the purpose of paragraph 7.1.2(a), “annual adjusted gross income” for a financial year of a CMSL means the annual gross income for the financial year less the sum of non-guaranteed staff bonuses, commissions and interest expenses reported as expenses in the annual statement lodged by the CMSL in Form 6 of the Regulations for the same financial year, and is deemed to be zero if it is a negative amount.

7.1.5 For the purpose of paragraph 7.1.2(b), the annual gross income for a financial year of a CMSL shall be deemed to be zero if it is a negative amount.

7.1.6 Where any statement referred to in paragraph 7.1.3 or 7.1.4 is not available, the CMSL shall consult with the Authority on the appropriate values to be used for the purpose of calculating its operational risk requirement.

PART VIII: LARGE EXPOSURE RISK REQUIREMENT

Division 1: Overview of Large Exposure Risk Requirement

8.1.1 A CMSL shall calculate its large exposure risk requirement as the sum of the following, unless otherwise specified by the Authority by notice in writing to the relevant CMSL concerned:

- (a) counterparty large exposure requirement calculated in accordance with paragraphs 8.2.1 to 8.2.3; and
- (b) issuer large exposure requirement calculated in accordance with paragraphs 8.3.1 to 8.3.15.

Division 2: Calculation of Counterparty Large Exposure Requirement

8.2.1 A CMSL shall calculate its total counterparty large exposure requirement as the sum of its individual counterparty large exposure requirements calculated in accordance with paragraphs 8.2.2 to 8.2.3.

8.2.2 Where a CMSL's total exposure to a counterparty, calculated in accordance with paragraph 8.2.3 below, is equal to or exceeds 20% of the CMSL's financial resources, the CMSL shall calculate an individual counterparty large exposure requirement as 100% of the counterparty risk requirement calculated in accordance with Part V, up to a maximum of the difference between the full value of the contract giving rise to the counterparty exposure and the counterparty risk requirement calculated in accordance with Part V.

8.2.3 For the purpose of paragraph 8.2.2, the total exposure of the CMSL to a counterparty is the sum of the counterparty exposures that the CMSL calculates in accordance with Part V, in relation to the counterparty, excluding the following exposures:

- (a) any exposure to the Singapore Government or a PSE in Singapore;
- (b) any exposure to the Authority;
- (c) any exposure to a central government or a central bank that has a credit rating of investment grade;
- (d) any free delivery;
- (e) any repurchase, reverse repurchase, or securities borrowing or lending agreement or similar agreement before the due date of the agreement;
- (f) any exposure calculated in relation to securities financing;
- (g) any exposure calculated in relation to a counterparty's account for the trading of any derivative contracts on a futures exchange or an overseas futures exchange and which is subject to maintenance margin requirements, where the counterparty —

- (i) does not have an outstanding margin call;
- (ii) has either —
 - (A) a margin call outstanding not more than 3 business days from the day the margin call is made, if the margin call is to be satisfied by remittance denominated in Japanese Yen; or
 - (B) a margin call outstanding not more than 2 business days from the day the margin call is made, if the margin call is to be satisfied by remittance denominated in currencies other than Japanese Yen;
- (h) any asset deducted from the CMSL's financial resources;
- (i) any exposure secured by an acceptable collateral;
- (j) such other exposure as the Authority may specify by notice in writing to the relevant CMSL concerned; and
- (k) provided the CMSL has received the prior written approval from the Authority, 80% of any exposure to a counterparty which is —
 - (i) a multilateral agency; or
 - (ii) a financial institution licensed, approved or designated by the Authority under the Banking Act (Cap. 19), the Finance Companies Act (Cap. 108), the Monetary Authority of Singapore Act (Cap. 186), or the Securities and Futures Act (Cap. 289), or registered under the Insurance Act (Cap. 142);
 - (iii) a recognised exchange;
 - (iv) a clearing facility appointed by a recognised exchange; and
 - (v) an entity which is a member of any entity referred to in subparagraphs (ii) to (iv).

Division 3: Calculation of Issuer Large Exposure Requirement

8.3.1 A CMSL shall calculate its total issuer large exposure requirement as the sum of its individual issuer large exposure requirements calculated in accordance with paragraphs 8.3.2 to 8.3.15.

8.3.2 Where a CMSL's total equity exposure to an issuer calculated in accordance with paragraph 8.3.3, total debt exposure to an issuer calculated in accordance with paragraph 8.3.4, or total equity and debt exposure to an issuer calculated in accordance with paragraph 8.3.5, exceeds the exposure limits specified in Table 8-1, the CMSL shall calculate an individual issuer large exposure requirement in accordance with paragraphs 8.3.3 to 8.3.15.

Table 8-1: Tests of Issuer Large Exposure

Exposure	Financial Resources Test	Issue Size Test	Large Equity, Large Debt or Large Total Equity and Debt Exposure Amount
Issuer Large Exposure Exists if -			
Equity	Total equity exposure to an issuer calculated in accordance with paragraph 8.3.3 exceeds 10% of the CMSL's financial resources.	Total equity exposure calculated in accordance with paragraph 8.3.3 arising from an individual series of equity securities issued by a issuer exceeds 5% of the issue size of that series of equity securities. The issue size of each series of equity securities refers to the market capitalisation of the issue.	Amount in excess of 10% of the CMSL's financial resources or amount in excess of 5% of issue size of each series.
Debt	Total debt exposure to an issuer calculated in accordance with paragraph 8.3.4 exceeds 10% of the CMSL's financial resources.	Total debt exposure calculated in accordance with paragraph 8.3.4 arising from an individual series of debt securities issued by an issuer exceeds 10% of the issue size of that series of debt securities.	Amount in excess of 10% of the CMSL's financial resources or amount in excess of 10% of issue size of each series.
Total Equity and Debt	Total equity and debt exposure to an issuer calculated in accordance with paragraph 8.3.5 exceeds 10% of the CMSL's financial resources.	Not applicable.	Amount in excess of 10% of the CMSL's financial resources.

8.3.3 A CMSL shall calculate its total equity exposure to an issuer as the absolute value of the net position that the CMSL holds as a principal in equity securities issued by the issuer, including notional positions arising from derivative contracts on equity securities issued by the issuer, and —

- (a) in the case of a futures contract or forward contract on an equity securities, the underlying equity securities;
- (b) in the case of an option (including a warrant) on equity securities that is in the money, the underlying equity securities; and

- (c) where the CMSL has entered into an agreement or arrangement to underwrite or to sub-underwrite an offer of securities, a position in those securities which are unplaced or unallotted after the date of subscription or the date of allotment of the securities,

but does not include any excluded issuer exposure.

8.3.4 A CMSL shall calculate its total debt exposure to an issuer as the absolute value of the net position that the CMSL holds as a principal in debt securities issued by the issuer, including notional positions arising from derivative contracts on debt securities issued by the issuer, and —

- (a) in the case of a futures contract or forward contract on a debt securities, the underlying debt securities;
- (b) in the case of an option (including a warrant) on debt securities that is in the money, the underlying debt securities; or
- (c) where the CMSL has entered into an agreement or arrangement to underwrite or to sub-underwrite an offer of securities, a position in those securities which are unplaced or unallotted after the date of subscription or the date of allotment of the securities,

but does not include any excluded issuer exposure.

8.3.5 A CMSL shall calculate its total equity and debt exposure to an issuer as the aggregate of its total equity exposure to the issuer calculated under paragraph 8.3.3 and its total debt exposure to the issuer calculated under paragraph 8.3.4.

8.3.6 Subject to paragraph 8.3.7, where the CMSL has exposure to both equity and debt securities issued by an issuer, the CMSL shall calculate the individual issuer large exposure requirement as the higher of —

- (a) the sum of the individual issuer equity large exposure requirement calculated in accordance with paragraphs 8.3.8 to 8.3.10, and the individual issuer debt large exposure requirement calculated in accordance with paragraphs 8.3.11 to 8.3.14; or
- (b) the individual issuer total equity and debt large exposure requirement calculated in accordance with paragraph 8.3.15.

8.3.7 For the purposes of this Part and Part VI, the sum of the position risk requirements for the CMSL's principal positions in the equity and debt securities of an issuer and the individual issuer large exposure requirements for the CMSL's exposure to the equity and debt securities of the issuer shall be restricted to 100% of the CMSL's net long or short positions in those equity and debt securities.

8.3.8 Subject to paragraph 8.3.9, where the CMSL's total equity exposure to an individual issuer exceeds the exposure limits specified in Table 8-1, it shall calculate an individual issuer equity large exposure requirement as the product of —

- (a) the large equity exposure amount set out in Table 8-1; and

(b) the appropriate standard method equity position risk factor set out in Part VI.

8.3.9 Where the CMSL's total equity exposure to an individual issuer exceeds the exposure limits under the issue size test specified in Table 8-1, the CMSL shall calculate the individual issuer equity large exposure requirement of the CMSL to the issuer as the aggregate of the issuer equity large exposure requirements for each individual series of the equity securities.

8.3.10 Where the CMSL's total equity exposure to an individual issuer exceeds the exposure limits under both the financial resources and issue size tests specified in Table 8-1, the large equity exposure amount for the purposes of paragraph 8.3.8 shall be the higher of the large equity exposure amounts calculated under these 2 tests.

8.3.11 Subject to paragraphs 8.3.12 to 8.3.14, where the CMSL's total debt exposure to an individual issuer exceeds the exposure limits specified in Table 8-1, it shall calculate an individual issuer debt large exposure requirement as the product of —

(a) the large debt exposure amount set out in Table 8-1; and

(b) the appropriate standard method debt position risk factor set out in Part VI.

8.3.12 Where the CMSL's total debt exposure to an individual issuer exceeds the exposure limits under the financial resources test specified in Table 8-1, the appropriate standard method debt position risk factor used to calculate the individual issuer debt large exposure requirement under paragraph 8.1.11 shall be the factor applicable to the debt securities with the greatest date-to-maturity period.

8.3.13 Where the CMSL's total debt exposure to an individual issuer exceeds the exposure limits under the issue size test specified in Table 8-1, the CMSL shall calculate the individual issuer debt large exposure requirement of the CMSL to the issuer as the aggregate of the issuer debt large exposure requirements for each individual series of the debt securities.

8.3.14 Where the CMSL's total debt exposure to an individual issuer exceeds the exposure limits under both the financial resources and issue size tests specified in Table 8-1, the large debt exposure amount for the purposes of paragraph 8.3.11 shall be the higher of the large debt exposure amounts calculated under the 2 tests.

8.3.15 Where a CMSL's total equity and debt exposure to an individual issuer exceeds the exposure limits under the financial resources test specified in Table 8-1, it shall calculate the individual issuer total equity and debt large exposure requirement, as the product of —

(a) the large total equity and debt exposure amount set out in Table 8-1; and

(b) the appropriate standard method position risk factor set out in Part VI, which is —

(i) the standard method position risk factor set out in Part VI applicable to the instrument held in the larger proportion; or

- (ii) the higher standard method position risk factor set out in Part VI applicable if both equity and debt securities are held in equal proportions.

PART IX: UNDERWRITING RISK REQUIREMENT

Overview

9.1.1 Where a CMSL enters into any legally binding agreement or arrangement to underwrite or to sub-underwrite any securities, the CMSL shall calculate an underwriting risk requirement in accordance with paragraphs 9.1.2 to 9.1.3, or in such manner as the Authority may specify by notice in writing to the relevant CMSL concerned.

Calculation of the underwriting risk requirement

9.1.2 A CMSL shall calculate an underwriting risk requirement as the product of —

- (a) the net underwriting exposure calculated under paragraph 9.1.3;
- (b) the appropriate standard method position risk factor applicable to the issue as prescribed under Part VI; and
- (c) the underwriting risk factor, which is 20%, or such other percentage as the Authority may specify by notice in writing to the relevant CMSL concerned.

9.1.3 A CMSL shall calculate a net underwriting exposure to securities, from the day it commits to underwriting the securities or the day when an underwriting agreement is signed, whichever is earlier, to the day the underwriting arrangement ends, not being a day that is later than the day after allotment of or close of application for the subscription for the securities, whichever is later, as the gross underwriting commitment of the CMSL, less the aggregate of amounts which the CMSL has sub-underwritten to, placed with, sold to or allotted to —

- (a) a bank licensed under the Banking Act (Cap. 19);
- (b) a merchant bank approved as a financial institution under the Monetary Authority of Singapore Act (Cap. 186);
- (c) a finance company licensed under the Finance Companies Act (Cap. 108);
- (d) a company or society registered under the Insurance Act (Cap. 142);
- (e) a holder of a capital market services licence to only carry out dealing in securities, trading in futures contracts, fund management or real estate investment trust management, or a combination of these regulated activities, under the Act;
- (f) a financial institution that is approved, licensed, registered or otherwise regulated by an authority in a foreign jurisdiction exercising any function that corresponds to a regulatory function of the Authority under the Banking Act (Cap. 19), the Finance Companies Act (Cap. 108), Insurance Act (Cap. 142), the Monetary Authority of Singapore Act (Cap. 186), or the Securities and Futures Act (Cap. 289), in a foreign jurisdiction and has a long-term credit rating of investment grade; and
- (g) any other person, provided that —
 - (i) full payment has been received by the CMSL from such person for the sub-underwritten, placed, sold or allotted amount; or

- (ii) the sub-underwritten, placed, sold or allotted amount can be offset against acceptable collateral received by the CMSL from such person under a netting agreement that satisfies the conditions specified in Annex 5F of Part V.



Monetary Authority of Singapore