

AMENDMENTS TO CDP CLEARING RULES

Rule 1 – Application and Definition

Current Rule	New Rule
1.2 DEFINITIONS	1.2 DEFINITIONS
<p>“Turnover”</p> <p>means at any time and in respect of a Clearing Member, the volume of Exchange Trades of such Clearing Member multiplied by the prices of the respective Exchange Trades for the immediately preceding 12 months and if such Clearing Member has traded for less than 12 months, the turnover of Exchange Trades of such Clearing Member for its immediately preceding trading period calculated as aforesaid (adjusted to a 12-month period).</p>	<p>“Turnover”</p> <p>means at any time and in respect of a Clearing Member, the volume of Exchange Trades cleared by such Clearing Member multiplied by the prices of the respective Exchange Trades for the immediately preceding 12 months and if such Clearing Member has traded for less than 12 months, the turnover of Exchange Trades cleared by such Clearing Member for its immediately preceding trading period calculated as aforesaid (adjusted to a 12-month period).</p>

Rule 6 – Clearing and Settlement

Current Rule	New Rule
New Rule.	<p><u>6.6A LARGE EXPOSURE COLLATERALISATION FOR CLEARING MEMBERS</u></p> <p><u>6.6A.1 CDP may require a Clearing Member to deposit collateral with CDP if CDP determines the Clearing Member's exposure to be large according to such methodologies as may be determined by CDP from time to time.</u></p> <p><u>6.6A.2 CDP shall determine and notify the Clearing Member in writing of:</u></p> <ul style="list-style-type: none"><u>(1) the amount of collateral to be deposited by the Clearing Member;</u><u>(2) the time by which the Clearing Member shall deposit this amount of collateral to CDP; and</u><u>(3) the form(s) of collateral which CDP will accept from the Clearing Member.</u> <p><u>6.6A.3 CDP shall return any collateral deposited by the Clearing Member pursuant to Rule 6.6A.1 at such time when, in CDP's opinion, such collateral is no longer required.</u></p>

Rule 7 – Clearing Fund

Current Rule	New Rule
<p>7.1 ESTABLISHMENT OF CLEARING FUND</p> <p>7.1.1 CDP shall establish and maintain a fund to be called the Clearing Fund.</p>	<p>7.1 ESTABLISHMENT OF CLEARING FUND</p> <p>No change.</p>
<p>7.1.2 The assets of the Clearing Fund shall be vested in CDP but shall be segregated from CDP’s other property and shall be held by CDP on trust for the purposes set out in these Clearing Rules.</p>	<p>No change.</p>
<p>7.1.3 The Clearing Fund shall comprise:-</p> <ul style="list-style-type: none"> (1) Contributions; (2) CDP Contribution (as defined in Rule 7.4.1); (3) moneys paid by an insurer under a contract of insurance entered into by CDP under Rule 7.5; (4) the funds drawn under the Standby Line of Credit (as defined in Rule 7.6.1); and (5) any other moneys paid into the Clearing Fund. 	<p>7.1.3 The Clearing Fund shall comprise:-</p> <ul style="list-style-type: none"> (1) Contributions <u>by Clearing Members</u>; (2) CDP Contribution (as defined in Rule 7.4.1); (3) moneys paid by an insurer under a contract of insurance <u>(if any)</u> entered into by CDP under Rule 7.5; <u>and</u> (4) the funds drawn under the Standby Line of Credit (as defined in Rule 7.6.1); and <u>(54)</u> any other moneys paid into <u>contributions to</u> the Clearing Fund.
<p>7.2 CONTRIBUTIONS BY CLEARING MEMBERS</p> <p>7.2.1 Except as otherwise provided in this Clearing Rules or as determined by CDP, each Clearing Member shall pay to CDP such amounts as may be determined under this Clearing Rules or as determined by CDP in its absolute discretion (the “Contribution”) in respect of every Exchange Trade cleared and/or settled by the Clearing Member herein. Each Clearing Member shall pay to CDP its Contribution to the Clearing Fund by such</p>	<p>7.2 CONTRIBUTIONS BY CLEARING MEMBERS</p> <p>7.2.1 Except as otherwise provided in this Clearing Rules or as determined by CDP, each Clearing Member shall pay to CDP such amounts as may be determined under this Clearing Rules or as determined by CDP in its absolute discretion (the “Contribution”) in respect of every Exchange Trade cleared and/or settled by the Clearing Member herein. Each Clearing Member shall pay to CDP its Contribution to the Clearing Fund by such</p>

Current Rule	New Rule
<p>time or times as stipulated by CDP. The Contribution of a Clearing Member shall consist of the Base Deposit and the Variable Deposit.</p>	<p>time or times as stipulated by CDP. The Contribution of a Clearing Member shall consist of the Base Deposit and the Variable Deposit.</p>
<p>New Rule</p>	<p>7.2.1A The Contribution of a Clearing Member shall consist of the Collateralised Contribution and the Contingent Contribution. Each Clearing Member shall pay:</p> <ul style="list-style-type: none"> (1) in respect of the Contribution, an amount as specified by CDP from time to time, in its discretion which shall not exceed 0.9 basis points of the Clearing Member's Turnover; (2) in respect of the Collateralised Contribution, an amount as specified by CDP from time to time, in its discretion which shall not exceed 0.6 basis points of the Clearing Member's Turnover; and (3) in respect of the Contingent Contribution, an amount which is determined by the rate which is the difference between the Contribution rate as specified by CDP under Rule 7.2.1A(1) and the Collateralised Contribution rate as specified by CDP under Rule 7.2.1A(2).
<p>7.2.2 The Base Deposit shall be an amount up to \$1,000,000 as specified by CDP in its absolute discretion. The Base Deposit shall be the minimum amount of Contribution required to be paid by each Clearing Member to the Clearing Fund.</p>	<p>7.2.2 The aggregate Collateralised Contributions from Clearing Members shall at all times be at least \$40 million or such lower amount as may be specified by CDP from time to time in its discretion.</p> <p>The Base Deposit shall be \$1,000,000 or such amount as specified by CDP in its absolute discretion. The Base Deposit shall be the minimum amount of Contribution required to be paid by each Clearing Member to the Clearing Fund.</p>
<p>7.2.3 The amount of the Variable Deposit shall be determined by reference to and shall be subject to such adjustments as are provided in Rule 7.14.</p>	<p>7.2.3 Notwithstanding Rule 7.2.1A:</p> <ul style="list-style-type: none"> (1) A Clearing Member's Collateralised Contribution shall be at

Current Rule	New Rule
	<p><u>least \$1,000,000, or such lower amount as may be specified by CDP from time to time in its discretion; and</u></p> <p><u>(2) If the aggregate Collateralised Contributions from all Clearing Members do not meet the minimum amount specified in Rule 7.2.2, the shortfall shall be contributed by each Clearing Member according to its Proportion.</u></p> <p>The amount of the Variable Deposit shall be determined by reference to and shall be subject to such adjustments as are provided in Rule 7.14.</p>
<p>7.2.4 The aggregate Contributions from Clearing Members at any time and from time to time shall be at least \$30 million or such lower amount as may from time to time be specified by CDP in its discretion (the "Total Clearing Fund Contribution").</p>	<p>7.2.4 <u>Where there is reason to believe that the operations of the Clearing Member is or is likely to be impaired by any event or circumstances, or such action is in the interests of maintaining a safe and efficient clearing facility, CDP may require:</u></p> <p><u>(1) such additional amounts to be paid as a top-up to the Contribution of the Clearing Member as it may, in its absolute discretion, decide; or</u></p> <p><u>(2) a Clearing Member's Contingent Contribution to be deposited with CDP; or</u></p> <p><u>(3) both.</u></p> <p>The aggregate Contributions from Clearing Members at any time and from time to time shall be at least \$30 million or such lower amount as may from time to time be specified by CDP in its discretion (the "Total Clearing Fund Contribution").</p>
<p><u>Adapted from Rule 7.14.5</u></p>	<p>7.2.5 <u>CDP shall notify each Clearing Member in writing of its Contribution required under Rules 7.2.1A and 7.2.4.</u></p>
<p>7.3 FORM OF CONTRIBUTIONS</p>	<p>7.3 FORM OF CONTRIBUTIONS</p>

Current Rule	New Rule
<p>7.3.1 Each Clearing Member shall provide its Contribution in cash or by way of bank guarantees from such bank as may be acceptable to CDP or in such other forms as may be prescribed by CDP from time to time. Such Contribution shall form part of the assets of the Clearing Fund.</p> <p>7.3.2 Where a Clearing Member provides its Contribution (or any part thereof) in the form of cash, CDP shall place the entire cash amount in an interest-bearing account with its bankers. CDP shall not be obliged to segregate the cash Contributions and may commingle cash Contributions for ease of administration.</p> <p>7.3.3 The interest earned on the cash Contributions shall not form part of the assets of the Clearing Fund. Interest earned on cash Contributions (or part thereof) shall be paid to the relevant Clearing Members, provided that interest shall not be payable on any cash Contributions (or any part thereof) if, at the time of payment to CDP, such Contribution (or part thereof) is less than the sum of \$1,000 or the minimum sum for moneys to be placed in a fixed deposit account with a bank in Singapore, whichever is the higher.</p> <p>7.3.4 CDP shall have the absolute discretion to decide upon the bank or banks with which the cash Contributions are to be placed on deposit and the terms of deposit, provided that any such bank shall be a licensed bank in Singapore within the meaning of the Banking Act (Cap. 19).</p>	<p>7.3.1 Each Clearing Member shall provide its Contribution in cash or by way of bank guarantees from such bank as may be acceptable to CDP or in such other forms <u>and subject to such conditions</u> as may be prescribed by CDP from time to time. Such Contribution shall form part of the assets of the Clearing Fund.</p> <p>No change.</p> <p>No change.</p> <p>No change.</p>
<p>7.4 CDP CONTRIBUTION</p> <p>7.4.1 CDP shall contribute a sum of \$30 million or such other amount as CDP may at its absolute discretion determine from time to time (the “CDP Contribution”) to the Clearing Fund.</p>	<p>7.4 <u>CDP CONTRIBUTIONS BY CDP</u></p> <p>7.4.1 <u>Contributions by</u> CDP shall contribute a sum be an amount to not less than 25% of the clearing fund size, as specified in Rule 7.4.1 determined by CDP, \$30 million or such other amount as CDP</p>

Current Rule	New Rule
	<p>may at its absolute discretion determine from time to time and shall consist of:</p> <p>(1) an sum amounting to not less than 15% of the clearing fund size or \$30 million, whichever is higher (the "CDP Contribution"), to be applied pursuant to Rule 7.9.1(2); and to the Clearing Fund</p> <p>(2) such other sums referred to in Rule 7.1.3(4), to be applied pursuant to Rule 7.9.1(6).</p>
<p>7.4.2 CDP Contribution shall be in the form of cash or bank guarantees or in such other form as may be determined by CDP. If CDP Contribution (or any part thereof) is in the form of cash, such cash amount shall be placed in an interest bearing account with CDP's bankers and the entire interest earned on such CDP Contribution (or such part thereof) shall be paid to CDP.</p> <p>7.4.3 The interest earned on CDP Contribution shall not form part of the assets of the Clearing Fund.</p> <p>7.4.4 CDP shall have the absolute discretion to decide upon the bank or banks with which the cash portion of CDP Contribution is to be placed on deposit and the terms of deposit, provided that any such bank shall be a licensed bank in Singapore within the meaning of the Banking Act (Cap. 19).</p>	<p>7.4.2 CDPContribution <u>by CDP</u> shall be in the form of cash or bank guarantees or in such other form <u>and subject to such conditions</u> as may be determined by CDP. —If any contributions by CDP Contribution (or any part thereof) is in the form of cash, such cash amount shall be placed in an interest bearing account with CDP's bankers and the entire interest earned on such <u>contributions</u> CDP Contribution (or such part thereof) shall be paid to CDP.</p> <p>7.4.3 The interest earned <u>on the cash portion of contributions by CDP Contribution</u> shall not form part of the assets of the Clearing Fund.</p> <p>7.4.4 CDP shall have the absolute discretion to decide upon the bank or banks with which the cash portion of <u>contributions by CDP Contribution</u> is to be placed on deposit and the terms of deposit, provided that any such bank shall be a licensed bank in Singapore within the meaning of the Banking Act (Cap. 19).</p>
<p>7.5 INSURANCE POLICY</p> <p>7.5.1 CDP shall take out a policy of insurance in respect of the Clearing Fund for such amount and with such insurer as it may, at its absolute discretion, determine and on such terms and conditions as it shall, at its absolute discretion, deem fit.</p>	<p>7.5 INSURANCE POLICY</p> <p>7.5.1 CDP may shall take out a policy of insurance in respect of the Clearing Fund for such amount and with such insurer as it may, at its absolute discretion, determine and on such terms and conditions as it shall, at its absolute discretion, deem fit.</p>

Current Rule	New Rule
<p>7.5.2 The premium payable on such insurance policy and any other related costs and expenses shall be payable by CDP, provided always that CDP may, at its absolute discretion, require Clearing Members to reimburse it in respect of such moneys paid, in the Proportion, or in such other manner as CDP may, at its absolute discretion, consider fair and appropriate.</p>	<p>No change.</p>
<p>7.6 CDP'S STANDBY LINE OF CREDIT</p> <p>7.6.1 CDP shall establish, from its own resources, a standby line of credit valued at \$75 million (or such other amount as CDP may, at its absolute discretion, determine from time to time) (the "Standby Line of Credit") for the purpose of the Clearing Fund.</p>	<p>7.6 CDP'S STANDBY LINE OF CREDIT</p> <p>7.6.1 CDP shall establish, from its own resources, a standby line of credit valued at \$75 million (or such other amount as CDP may, at its absolute discretion, determine from time to time) (the "Standby Line of Credit") for the purpose of the Clearing Fund.</p>
<p>7.7 INVESTMENT OF ASSETS OF CLEARING FUND</p> <p>7.7.1 CDP may invest the assets and resources of the Clearing Fund in such manner as it shall deem fit.</p> <p>7.7.2 Interest or any other sums accruing to the assets of the Clearing Fund shall, unless otherwise provided in these Clearing Rules, be appropriated by CDP to the Clearing Fund.</p> <p>7.7.3 CDP may appoint such persons as it may deem suitably qualified to invest the assets and resources of the Clearing Fund.</p> <p>7.7.4 CDP, if acting in good faith and in the absence of fraud or wilful misconduct on its part, shall not be liable for any losses in the investment of the assets or resources of the Clearing Fund.</p>	<p>7.7 INVESTMENT OF ASSETS OF CLEARING FUND</p> <p>No change.</p> <p>No change.</p> <p>No change.</p> <p>No change.</p> <p>No change.</p>
<p>7.8 APPLICATION OF CLEARING FUND</p> <p>7.8.1 Unless otherwise provided in the Clearing Rules or as determined</p>	<p>7.8 APPLICATION OF CLEARING FUND</p> <p>No change.</p>

Current Rule	New Rule
<p>by CDP, the Clearing Fund may be applied:-</p> <ol style="list-style-type: none"> (1) to make good all losses suffered by CDP as a result of the breach by a Defaulting Clearing Member of any of its Novated Contracts; (2) to make good any shortfall (resulting from the inapplicability of Rule 6.4 to the New Purchase Contracts and New Sale Contracts) of moneys payable by CDP to the other Clearing Members pursuant to Rule 6.4; and (3) in respect of the obligations and liabilities of CDP arising out of the Novated Contracts (including but not limited to the costs and expenses incurred in relation to making recoveries from a Defaulting Clearing Member and in relation to any action taken by CDP pursuant to Rule 8). 	
<p>7.9 ORDER OF APPLICATION OF CONTRIBUTIONS</p> <p>7.9.1 Subject to the provisions of Rule 7.9, payments out of the Clearing Fund shall be in the following order:-</p> <ol style="list-style-type: none"> (1) firstly, against the Contributions made by the Defaulting Clearing Member; (2) secondly, against CDP Contributions; (3) thirdly, against the Contributions made by all other Clearing Members on a pro rata basis in the Proportion; (4) fourthly, against such policy(ies) of insurance (if any) as may be in effect at the time; and (5) lastly, against CDP's Standby Line of Credit, <p>(the "Order", and each stage thereof shall be referred to as a</p>	<p>7.9 ORDER OF APPLICATION OF CONTRIBUTIONS</p> <p>7.9.1 Subject to the provisions of Rule 7.9, payments out of the Clearing Fund shall be in the following order:-</p> <ol style="list-style-type: none"> (1) firstly, against the Contributions made by the Defaulting Clearing Member; (2) secondly, against CDP Contributions; (3) thirdly, against the <u>Collateralised Contributions made by required from</u> all other <u>non-Defaulting</u> Clearing Members on a pro rata basis <u>in the Proportion of each Clearing Member's required Collateralised Contribution to the aggregate required Collateralised Contributions made by all other non-Defaulting Clearing Members'</u>; (4) fourthly, <u>against the Contingent Contributions required from all other non-Defaulting Clearing Members on a pro</u>

Current Rule	New Rule
<p>“Stage” of the Order or as a certain “Stage of the Order”).</p>	<p>rata basis of each Clearing Member's required Contingent Contribution to the aggregate required Contingent Contributions made by all other non-Defaulting Clearing Members';</p> <p>(45) fourthly fifthly, against such policy(ies) of insurance (if any) as may be in effect at the time; and</p> <p>(6) lastly, against CDP's Standby Line of Credit any other contributions to the Clearing Fund,</p> <p>(the “Order”, and each stage thereof shall be referred to as a “Stage” of the Order or as a certain “Stage of the Order”).</p>
<p>7.9.2 Subject to Rule 7.9.2 and Rule 7.9.3, in any Relevant Period, the Order shall be followed irrespective of the number of drawings on the Clearing Fund. In such Relevant Period, in the event that a drawing on the Clearing Fund shall draw on part only of the funds available at any Stage under Rules 7.9.1(2) to (5) of the Order (the “Unexhausted Stage”) (whether or not funds from a previous Stage or previous Stages have also been drawn upon for that drawing), the next drawing on the Clearing Fund in the Relevant Period shall, after exhausting the Contributions made by the Defaulting Clearing Member in the Stage under Rule 7.9.1(1), draw first from the remaining funds available at the Unexhausted Stage before drawing from the next Stage(s) of the Order.</p>	<p>7.9.2 Subject to Rule 7.9.2 and Rule 7.9.3, in any Relevant Period, the Order shall be followed irrespective of the number of drawings on the Clearing Fund. In such Relevant Period, in the event that a drawing on the Clearing Fund shall draw on part only of the funds available at any Stage under Rules 7.9.1(2) to (56) of the Order (the “Unexhausted Stage”) (whether or not funds from a previous Stage or previous Stages have also been drawn upon for that drawing), the next drawing on the Clearing Fund in the Relevant Period shall, after exhausting the Contributions made by the Defaulting Clearing Member in the Stage under Rule 7.9.1(1), draw first from the remaining funds available at the Unexhausted Stage before drawing from the next Stage(s) of the Order.</p>
<p>7.9.3 Once all the Stages of the Order have been exhausted in any Relevant Period, any current or subsequent drawing on the Clearing Fund in that Relevant Period shall revert to the strict sequence of the Order, provided always that:-</p> <p>(1) (subject to Rule 7.12) CDP Contribution, once paid out in full, shall not be topped up by CDP; and</p>	<p>7.9.3 Once all the Stages of the Order have been exhausted in any Relevant Period, any current or subsequent drawing on the Clearing Fund in that Relevant Period shall revert to the strict sequence of the Order, provided always that:-</p> <p>(1) (subject to Rule 7.12) CDP shall not be required to top up the CDP Contribution, once paid out in full, shall not be topped up by CDP Nothing in this Rule prevents CDP from topping up the CDP Contribution, in such amounts as CDP</p>

Current Rule	New Rule
<p>(2) the policy(ies) of insurance (referred to in Rule 7.9.1(4)), once paid out in full in any Relevant Period, may have limitations on the time periods during which the insured amount, after having been fully paid out in that Relevant Period, will be next available for payment out of the Clearing Fund (whether in that Relevant Period or the next Relevant Period), and any such current or subsequent drawing will be subject to any terms and conditions of the policy(ies) of insurance.</p>	<p>may determine, during any Relevant Period or upon the commencement of a new Relevant Period; and</p> <p>(2) the policy(ies) of insurance (referred to in Rule 7.9.1(45)), once paid out in full in any Relevant Period, may have limitations on the time periods during which the insured amount, after having been fully paid out in that Relevant Period, will be next available for payment out of the Clearing Fund (whether in that Relevant Period or the next Relevant Period), and any such current or subsequent drawing will be subject to any terms and conditions of the policy(ies) of insurance.</p>
<p>7.9.4 Upon the commencement of a new Relevant Period, regardless of the Stage of the Order from which the last payment out from the Clearing Fund was made in the previous Relevant Period, the first drawing on the Clearing Fund in the new Relevant Period shall revert to the first Stage of the Order in Rule 7.9.1(1) and the subsequent Stages of the Order shall follow accordingly, provided always that subject to Rule 7.12, CDP Contribution, once paid out in full, shall not be topped up by CDP.</p>	<p>7.9.4 Upon the commencement of a new Relevant Period, regardless of the Stage of the Order from which the last payment out from the Clearing Fund was made in the previous Relevant Period, the first drawing on the Clearing Fund in the new Relevant Period shall revert to the first Stage of the Order in Rule 7.9.1(1) and the subsequent Stages of the Order shall follow accordingly, provided always that subject to Rule 7.12, CDP shall not be required to top up the CDP Contribution, once paid out in full, shall not be topped up by CDP. Nothing in this Rule prevents CDP from topping up the CDP Contribution, in such amounts as CDP may determine, during any Relevant Period or upon the commencement of a new Relevant Period.</p>
<p>7.9.5 Notwithstanding Rule 7.9.1, CDP shall be entitled to draw upon the Standby Line of Credit at any time for the purposes set out in Rule 7.8 in the event that there is any delay in obtaining payment from the Clearing Fund in any Stage of the Order, such delays arising for example, where the cash deposits of the Clearing Fund are placed in fixed deposit accounts and penalty charges may be incurred for the premature termination of the fixed deposit accounts or arising out of the realisation or disposal of the resources and assets of the Clearing Fund or delay in obtaining payment from the policies, guarantees or other facilities of the</p>	<p>7.9.5 Notwithstanding Rule 7.9.1, CDP shall be entitled to draw upon the Standby Line of Credit its available lines of credit or other such liquidity resources available to CDP at any time for the purposes set out in Rule 7.8 in the event that there is any delay in obtaining payment from the Clearing Fund in any Stage of the Order, such delays arising for example, where the cash deposits of the Clearing Fund are placed in fixed deposit accounts and penalty charges may be incurred for the premature termination of the fixed deposit accounts or arising out of the realisation or disposal of the resources and assets of the Clearing Fund or delay in obtaining</p>

Current Rule	New Rule
<p>Clearing Fund or where CDP, in its absolute discretion, deems it advisable to draw upon the Standby Line of Credit first.</p>	<p>payment from the policies, guarantees or other facilities of the Clearing Fund or where CDP, in its absolute discretion, deems it advisable to draw upon the Standby Line of Credit its available lines of credit or other such liquidity resources available to CDP first.</p>
<p>7.9.6 Where the Standby Line of Credit is drawn down pursuant to Rule 7.9.5, CDP shall be entitled to be reimbursed for this amount from the moneys which are eventually obtained from any relevant Stage of the Order.</p>	<p>7.9.6 Where the Standby Line of Credit is drawn down CDP draws down on any lines of credit or other such liquidity resources available to CDP pursuant to Rule 7.9.5, CDP shall be entitled to be reimbursed for this amount and all costs in relation to drawing down such lines of credit or other such liquidity resources available to CDP from the moneys which are eventually obtained from any relevant Stage of the Order.</p>
<p>7.10 TOP-UP OF CONTRIBUTIONS IN AN EVENT OF DEFAULT</p> <p>7.10.1 CDP shall notify a Clearing Member in writing whenever its Contribution (or any part thereof) is applied in accordance with Rule 7.9.1.</p> <p>7.10.2 A Defaulting Clearing Member shall reimburse the Clearing Fund for any amount (except such Contributions made by the Defaulting Clearing Member) which was applied out of the Clearing Fund (the "Default Amount") as a result of his default.</p> <p>7.10.3 If any amount is paid out of a Clearing Member's Contributions pursuant to the third Stage of the Order in Rule 7.9.1(3) the Clearing Member shall, upon demand by CDP, top-up the deficiency in its Contribution arising from the said payment. CDP shall notify each of the Clearing Members in writing of the amount</p>	<p>7.10 TOP-UP OF CLEARING MEMBER'S CONTRIBUTIONS IN AN EVENT OF DEFAULT</p> <p>No change.</p> <p>No change.</p> <p>7.10.3 If any amount is paid out of a Clearing Member's Contributions</p>

Current Rule	New Rule
payable by it to CDP under this Rule.	pursuant to the third Stage of the Order in Rule 7.9.1(3) or fourth stage of the Order in Rule 7.9.1(4) , the Clearing Member shall, upon demand by CDP, top-up the deficiency in its Contribution arising from the said payment. CDP shall notify each of the Clearing Members in writing of the amount payable by it to CDP under this Rule.
<p>7.11 Resignation</p> <p>7.11.1 A Clearing Member who is required to make any payment to the Clearing Fund pursuant to Rule 7.10, may resign in accordance with Rule 3.11 to CDP after settlement of such payment.</p> <p>7.11.2 From the date of receipt by CDP of the resignation notice, such Clearing Member's aggregate liability to make payment into the Clearing Fund by reason of events occurring before the termination of its status as a Clearing Member shall not exceed an amount equal to its required Contribution at the date of the resignation notice, plus 2 times such amount.</p>	<p>7.11 Resignation</p> <p>No change.</p> <p>No change.</p>
<p>7.12 RECOVERY OF SUMS</p> <p>7.12.1 Subject to the provisions of this Rule, if any amount paid out of the Clearing Fund pursuant to Rule 7.8 and in accordance with Rule 7.9 is subsequently recovered by CDP in whole or in part, CDP shall credit the amount so received to the Clearing Fund in the reverse of the Order in which it was paid out. Where Contributions by Clearing Members had been paid out of the Clearing Fund, the amount so received for the relevant Stage of the Order shall be paid back to such Clearing Members in the Proportion, provided that if any Clearing Member has not paid any part of the moneys required to be paid into the Clearing Fund pursuant to Rule 7.10, such Clearing Member's Proportion of such amount shall be paid first into the Clearing Fund together with any interest accruing thereon from the date such amount was due to date of actual payment of such amount, and any excess shall be paid back to such Clearing Member. Where CDP Contribution</p>	<p>7.12 RECOVERY OF SUMS</p> <p>7.12.1 Subject to the provisions of this Rule, if any amount paid out of the Clearing Fund pursuant to Rule 7.8 and in accordance with Rule 7.9 is subsequently recovered by CDP in whole or in part, CDP shall credit the amount so received to the Clearing Fund in the reverse of the Order in which it was paid out. Where Contributions by Clearing Members had been paid out of the Clearing Fund, the amount so received for the relevant Stage of the Order shall be paid back to such Clearing Members in the Proportion on a pro-rata basis of each Clearing Member's required Contribution to the aggregate required Contributions from all Clearing Members other than the Defaulting Clearing Member for that relevant Stage of the Order, provided that if any Clearing Member has not paid any part of the moneys required to be paid into the Clearing Fund pursuant to Rule 7.10, such Clearing Member's Proportion Contribution of such amount shall be paid first into the Clearing Fund together</p>

Current Rule	New Rule
<p>has been paid out of the Clearing Fund, the amount so received shall be paid towards CDP Contribution and not to CDP.</p>	<p>with any interest accruing thereon from the date such amount was due to date of actual payment of such amount, and any excess shall be paid back to such Clearing Member. Where contributions by CDP have Contribution has been paid out of the Clearing Fund, the amount so received shall be paid towards the relevant stage of the Order GDP Contribution and not to CDP.</p>
<p>7.12.2 Where insurance moneys have been paid out of the Clearing Fund in any Relevant Period, any recovered moneys shall notwithstanding Rule 7.12.1 above:-</p> <p>(1) if the recovery is made in that Relevant Period, be paid to the insurer provided that the insurer agrees that the recovered moneys shall be used to reset the applicable limits on insurance coverage for the Relevant Period under the insurance policy; and</p> <p>(2) if the recovery is not made in that Relevant Period and:-</p> <p>(a) no other drawing has subsequently been made on the Clearing Fund (whether or not in that Relevant Period), be paid to the insurer; or</p> <p>(b) drawings have subsequently been made on the Clearing Fund (whether or not in that Relevant Period), be paid in the reverse of the Stages of the Order in which such drawings were made if moneys have not already been recovered for such Stages, and any excess shall be paid to the insurer.</p>	<p>No change.</p>
<p>7.13 RETURN OF CONTRIBUTIONS</p> <p>7.13.1 Within 6 months of the termination of membership of the Clearing Member, provided that all liabilities of such Clearing Member to CDP at the time of termination, whether actual or contingent, shall</p>	<p>7.13 RETURN OF CONTRIBUTIONS</p> <p>No change.</p>

Current Rule	New Rule
<p>have been satisfied or paid for in full, CDP may return to the Clearing Member the balance of its Contribution (taking into account any pending and previous applications of the Clearing Fund at the time of such termination).</p>	
<p>7.14 CALCULATION OF VARIABLE DEPOSIT</p> <p>7.14.1 The amount of the Variable Deposit (if any) payable by a Clearing Member shall be determined as follows or on such basis as may be advised by CDP at any time and from time to time:-</p> $V = (P \times C) - B$ <p>Where V = Variable Deposit</p> <p>P = Proportion</p> <p>C = Total Clearing Fund Contribution</p> <p>B = Base Deposit</p> <p>Provided always that if the Variable Deposit is zero or less than zero, such Clearing Member shall not be required to contribute a Variable Deposit.</p> <p>7.14.2 The Variable Deposit payable by each Clearing Member and the basis and formula used in calculating the Variable Deposit shall be determined by CDP at its absolute discretion, and may be reviewed from time to time by CDP, in its absolute discretion.</p> <p>7.14.3 Without prejudice to the generality of Rule 7.14.2, CDP shall review the Variable Deposit payable by each Clearing Member in the event of a change in the Proportion, the Total Clearing Fund Contribution or the Base Deposit.</p> <p>7.14.4 CDP shall notify in writing each Clearing Member of the Variable</p>	<p>7.14 CALCULATION OF VARIABLE DEPOSIT</p> <p>7.14.1 The amount of the Variable Deposit (if any) payable by a Clearing Member shall be determined as follows or on such basis as may be advised by CDP at any time and from time to time:-</p> $V = (P \times C) - B$ <p>Where V = Variable Deposit</p> <p>P = Proportion</p> <p>C = Total Clearing Fund Contribution</p> <p>B = Base Deposit</p> <p>Provided always that if the Variable Deposit is zero or less than zero, such Clearing Member shall not be required to contribute a Variable Deposit.</p> <p>7.14.2 The Variable Deposit payable by each Clearing Member and the basis and formula used in calculating the Variable Deposit shall be determined by CDP at its absolute discretion, and may be reviewed from time to time by CDP, in its absolute discretion.</p> <p>7.14.3 Without prejudice to the generality of Rule 7.14.2, CDP shall review the Variable Deposit payable by each Clearing Member in the event of a change in the Proportion, the Total Clearing Fund Contribution or the Base Deposit.</p> <p>7.14.4 CDP shall notify in writing each Clearing Member of the Variable</p>

Current Rule	New Rule
<p>Deposit.</p> <p>7.14.5 Notwithstanding Rule 7.14.1, CDP may at any time from time to time request such additional amounts to be paid as a top-up to the Contribution of the Clearing Member as it may, in its absolute discretion decide if, in the opinion of CDP:-</p> <p>(1) the functioning or operations of the Clearing Member is or is likely to be impaired by any event or circumstances; or</p> <p>(2) such action is in the general interest of CDP and/or its Clearing Members.</p>	<p>Deposit.</p> <p>7.14.5 Notwithstanding Rule 7.14.1, CDP may at any time from time to time request such additional amounts to be paid as a top-up to the Contribution of the Clearing Member as it may, in its absolute discretion decide if, in the opinion of CDP:-</p> <p>(1) the functioning or operations of the Clearing Member is or is likely to be impaired by any event or circumstances; or</p> <p>(2) such action is in the general interest of CDP and/or its Clearing Members.</p>
<p>7.15 TIME OF PAYMENT OF CONTRIBUTIONS</p> <p>7.15.1 Clearing Members shall pay any amount required by CDP as its Contribution or as a top-up to its Contribution promptly within 3 Settlement Days after the date of the written notice from CDP requiring such payment, or within such other period as may from time to time be determined by CDP.</p>	<p>7.15 TIME OF PAYMENT OF CONTRIBUTIONS</p> <p>7.15.1 Clearing Members shall pay any amount required by CDP as its <u>Collateralised</u> Contribution or as a top-up to its <u>Collateralised</u> Contribution promptly within 3 Settlement Days after the date of the written notice from CDP requiring such payment, or within such other period as may from time to time be determined by CDP.</p>
<p><u>New Rule</u></p>	<p><u>7.15.1A Clearing Members shall pay any amount required to be deposited with CDP as its Contingent Contribution or as a top-up to its Contingent Contribution promptly, within such time as specified in the written notice from CDP requiring such payment.</u></p>
<p>7.15.2 CDP shall be entitled to charge interest (at such rates and upon such terms, as it may in its absolute discretion determine) on any amount payable by a Clearing Member as its Contribution or as a top-up to its Contribution at such rate as may be determined by CDP in the event that such Clearing Member does not pay the required amount in accordance with these Clearing Rules.</p>	<p>No change.</p>

Practice Note

6.6A.1 LARGE EXPOSURE COLLATERALISATION FOR CLEARING MEMBERS

Issue Date	Cross Reference	Enquiries
3 May 2011	Rule 6.6A.1	Please contact Risk Management: Facsimile No : 6532 0297 E-Mail Address: rm-securities@sgx.com

1 INTRODUCTION

- 1.1 Rule 6.6A.1 requires Clearing Members to deposit collateral with CDP if CDP determines the Clearing Member's exposure to be large.
- 1.2 The objective of Large Exposure Collateralisation is to further enhance the robustness of the clearing system and allow Clearing Members to take greater responsibility for the risk they bring to the system.
- 1.3 Clearing Members may be required to deposit collateral with CDP under the following circumstances:
 - (a) where the outstanding traded values for a Clearing Member deviates significantly above its usual level; or
 - (b) when a Clearing Member's exposure, as measured by CDP, exceeds the Clearing Fund.
- 1.4 Both situations bring additional risk and are therefore addressed as part of prudent risk management by SGX. The Large Exposure Collateralisation requirement places the responsibility on the individual Clearing Member and avoids the need for an unnecessarily large Clearing Fund.
- 1.5 This Practice Note sets out the methodology used by CDP to compute the Large Exposure Collateralisation set out in the above Rule.

2 METHODOLOGY FOR COMPUTATION OF LARGE EXPOSURE COLLATERAL

2.1 Scenario 1

- 2.1.1 A Clearing Member may be required to deposit collaterals with CDP if its 3-day gross buy outstanding traded value or gross sell outstanding traded value exceeds its individual threshold ("the **Threshold**"). The Threshold is a multiple ("the **Multiple**") of the Clearing Member's usual level of traded value. Clearing Members will be informed of the Multiple by way of a circular.
- 2.1.2 A Clearing Member's usual level of traded value is calculated from its preceding 12-month average (one-sided) traded value. If a Clearing Member has traded for less than 12 months, its traded value will be adjusted to a 12-month period.

2.1.3 In the case of a Clearing Member who is required to contribute at the minimum Collateralised Contribution set out in Rule 7.2.3, the Threshold will be adjusted upwards. This adjustment takes into account that the Clearing Member's Collateralised Contribution is in excess of the amount determined by multiplying the Clearing Member's Turnover and the Collateralised Contribution rate set out in CDP Clearing Rule 7.2.1A. This avoids unduly penalising Clearing Members who have low exposure.

2.1.4 The collateral requirement is a percentage ("**Margin Rate**") of the difference between:

- (a) the Clearing Member's netted positions (based on, inter alia, account, counter and settlement date); and
- (b) its Threshold.

In addition, the CDP may take into consideration the following factors in determining the final amount:

- (a) Mark-to-market gains or losses;
- (b) Diversification benefits; and
- (c) Qualitative risk factors, such as market conditions and Clearing Members' credit standing.

2.1.5 Extended Settlement Contracts are excluded from this requirement.

2.1.6 Two examples of the calculation of the collateral requirement in Scenario 1 are set out in Appendix A of this Practice Note.

2.2 Scenario 2

2.2.1 CDP may require a Clearing Member to put up collateral if its risk exposure, as measured by CDP, exceeds the Clearing Fund.

2.2.2 Clearing Member's risk exposure is determined by applying various stress scenarios to Clearing Members' outstanding positions. These include historical price movements over the last 20 years.¹

2.2.3 Collateral may be required for the excess of the outstanding risk exposure above the Clearing Fund.

2.2.4 When determining the amount of collateral, CDP may take into consideration qualitative risk factors, such as market conditions and Clearing Members' credit standing.

2.3 Clearing Members should engage the CDP, as early as practicable, if they are aware of any potential large transactions that may lead to the requirement to put up collaterals. With information on the transaction, CDP may be able to estimate the amount of collateral that may be required.

¹ The stress scenarios are in line with CPSS-IOSCO standards for assessing adequacy of clearing funds.

APPENDIX A: CALCULATION OF LARGE EXPOSURE COLLATERAL REQUIREMENT IN SCENARIO 1

Section A demonstrates the calculation of the collateral requirement in Scenario 1 for a Clearing Member who contributes above the required Minimum Collateralised Contribution set out in CDP Clearing Rule 7.2.3.

Section B demonstrates the calculation for a Clearing Member who contributes **at** the required Minimum Collateralised Contribution.

A. Clearing Member contributes above the required Minimum Collateralised Contribution

1 Sample Information for this example

1.1 *Information for Clearing Member ABC is as follows:*

ABC's preceding 12-month total (two-sided) traded value² = S\$50b

ABC's Collateralised Contribution to the CDP Clearing Fund = S\$2.5m

Assumptions:

Multiple = 2

Margin Rate = 5%

3-day outstanding trades for Clearing Member ABC:

Account Number	Counter Name	Settlement Date	Buy / Sell Type	Contract Value (\$)
111	SIA	1/6/09	Buy	375m
111	SIA	1/6/09	Sell	365m
111	SPH	3/6/09	Buy	404m
111	Singtel	1/6/09	Sell	6m
111	Singtel	2/6/09	Buy	33m
111	Singtel	3/6/09	Buy	56m
222	SGX	1/6/09	Buy	300m
222	Starhub	2/6/09	Sell	152m

2 Calculating the Threshold

2.1 The Threshold for a Clearing Member who contributes more than the minimum Collateralised Contribution is computed as:

$$\begin{aligned}\text{Threshold} &= \text{Multiple} \times \frac{\text{preceding 12-month total (two-sided)traded value}}{2} \times \frac{3 \text{ days}}{252 \text{ days}} \\ &= \text{Multiple} \times \text{preceding 12-month total (one-sided)traded value} \times \frac{3 \text{ days}}{252 \text{ days}}\end{aligned}$$

2.2 Clearing Member ABC's Threshold is computed as:

$$2 \times \frac{\text{S\$50b}}{2} \times \frac{3 \text{ days}}{252 \text{ days}} = \text{S\$595m}.$$

² A Clearing Member's preceding 12-month total (two-sided) traded value will be established on a monthly basis.

3 Comparing Clearing Member's 3-day gross buy or sell outstanding traded value against its Threshold

3.1 Clearing Member ABC's 3-day gross buy outstanding is S\$1,168m (S\$375m + S\$404m + S\$33m + S\$56m + S\$300m) and 3-day gross sell outstanding is S\$523 (S\$365m + S\$6m + S\$152m). As the higher of the 3-day gross buy or sell outstanding traded value (i.e. buy of S\$1,168m) exceeds its Threshold of S\$595m, Clearing Member ABC may be required to deposit collateral with CDP.

4 Estimating Collateralisation Requirement

4.1 The amount of collateral which Clearing Member ABC may be required to deposit with CDP is calculated in the following manner.

a) *Clearing Member ABC's outstanding trades in each counter for an account are netted to obtain a net buy or net sell value for each settlement date and counter in an account:*

Account Number	Counter	Settlement Date	Net Buy Values	Net Sell Values
Account 111	SIA	1/6/09	S\$375m – S\$365m = S\$10m	
	Singtel	1/6/09		S\$6m
	Singtel	2/6/09	S\$33m	
	Singtel	3/6/09	S\$56m	
	SPH	3/6/09	S\$404m	
Account 222	SGX	1/6/09	S\$300m	
	Starhub	2/6/09		S\$152m

In establishing the Clearing Member's netted position, sell put warrants are aggregated with buy trades while buy put warrants are aggregated with sell trades.

b) *The net buy and net sell values for the Clearing Member are aggregated:*

Aggregate Net Buy Position	Aggregate Net Sell Position
S\$10m + S\$33m + S\$56m + S\$404m + S\$300m = S\$803m	S\$6m + S\$152m = S\$158m

c) *The estimated collateral requirement before taking into account other relevant factors is computed as:*

Assuming a Margin Rate of 5%,

Estimated Collateral Requirement

= Margin Rate x (Higher of Aggregate Net Buy or Sell Position – Threshold)

= 5% x (S\$803m – S\$595m)

= S\$10.4m

5 Final Collateral Requirement after taking into account other relevant factors

CDP will review other factors to determine the final collateral amount that the Clearing Member will have to deposit with CDP.

B. Clearing Member contributes at the required Minimum Collateralised Contribution

1 Sample Information for this example

1.1 *Information for Clearing Member XYZ is as follows:*

XYZ's preceding 12-month total (two-sided) traded value³ = S\$10b
XYZ's Collateralised Contribution to the CDP Clearing Fund = S\$1m

Assumptions:

Multiple = 2

Collateralised Contribution rate = 0.5 basis points

Margin Rate = 5%

3-day outstanding trades for Clearing Member XYZ:

Account Number	Counter Name	Settlement Date	Buy / Sell Type	Contract Value (\$)
888	SIA	1/6/09	Buy	10m
888	SIA	1/6/09	Sell	4m
555	SPH	2/6/09	Buy	115m
555	Starhub	2/6/09	Sell	6m
333	Singtel	3/6/09	Buy	122m

2 Determining the Threshold

2.1 The Threshold for a Clearing Member who contributes at the minimum Collateralised Contribution is computed as:

$$\text{Threshold} = \text{Multiple} \times \frac{\text{minimum Collateralised Contribution}}{\text{Collateralised Contribution rate}} \times \frac{1}{2} \times \frac{3 \text{ days}}{252 \text{ days}}$$

2.2 Clearing Member XYZ's Threshold is calculated as:

$$2 \times \frac{\text{S\$1m}}{0.5\text{bp}} \times \frac{1}{2} \times \frac{3 \text{ days}}{252 \text{ days}} \approx \text{S\$240m}$$

3 Comparing Clearing Member's 3-day buy or sell outstanding traded value against its Threshold

3.1 Clearing Member XYZ's 3-day gross buy outstanding traded value is S\$247m (S\$10m + S\$115m + S\$122m) and 3-day gross sell outstanding traded value is S\$10m (S\$4m + S\$6m). As the higher of the 3-day gross buy or sell outstanding traded value (i.e. buy of S\$247m) exceeds its Threshold of S\$240m, Clearing Member XYZ may be required to deposit collateral with CDP.

³ A Clearing Member's preceding 12-month total (two-sided) traded value will be established on a monthly basis.

4 Estimating Collateralisation Requirement

4.1 The amount of collateral which Clearing Member XYZ may be required to deposit with CDP is calculated in the following manner.

a) *Clearing Member XYZ's outstanding trades in each counter for an account are netted to obtain a net buy or net sell value for each settlement date and counter in an account:*

Account Number	Counter	Settlement Date	Net Buy Values	Net Sell Values
Account 888	SIA	1/6/09	S\$10m – S\$4m = S\$6m	
Account 555	SPH	2/6/09	S\$115m	
	Starhub	2/6/09		S\$6m
Account 333	Singtel	3/6/09	S\$122m	

In establishing the Clearing Member's netted position, sell put warrants are aggregated with buy trades while buy put warrants are aggregated with sell trades.

b) *The net buy and net sell values for the Clearing Member are aggregated:*

Aggregate Net Buy Position	Aggregate Net Sell Position
S\$6m + S\$115m + S\$122m = S\$243m	S\$6m

c) *The estimated collateral requirement before taking into account other relevant factors is computed as:*

Assuming a Margin Rate of 5%,

Estimated Collateral Requirement

= Margin Rate x (Higher of Aggregate Net Buy or Sell Position – Threshold)

= 5% x (S\$243m – S\$240m)

= S\$0.15m

5 Final Collateral Requirement after taking into account other relevant factors

CDP will review other factors to determine the final collateral amount that the Clearing Member will have to deposit with CDP.