IMPORTANT NOTICE

NOT FOR DISTRIBUTION TO ANY PERSON OR ADDRESS IN THE UNITED STATES

IMPORTANT: You must read the following disclaimer before continuing. The following disclaimer applies to the attached preliminary supplemental offering circular (the "**Supplemental Offering Circular**"). You are therefore advised to read this carefully before reading, accessing or making any other use of the attached Supplemental Offering Circular. In accessing the attached Supplemental Offering Circular, you agree to be bound by the following terms and conditions, including any modifications to them from time to time, each time you receive any information from us as a result of such access.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER OF SECURITIES FOR SALE IN THE UNITED STATES OR ANY OTHER JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE SECURITIES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**"), OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTION AND THE SECURITIES MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES, EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE OR LOCAL SECURITIES LAWS.

THE ATTACHED SUPPLEMENTAL OFFERING CIRCULAR MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER, AND IN PARTICULAR, MAY NOT BE FORWARDED TO ANY U.S. ADDRESS. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORISED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS.

IF YOU HAVE GAINED ACCESS TO THIS TRANSMISSION CONTRARY TO ANY OF THE FOREGOING RESTRICTIONS, YOU ARE NOT AUTHORISED AND WILL NOT BE ABLE TO PURCHASE ANY OF THE SECURITIES DESCRIBED IN THE ATTACHED SUPPLEMENTAL OFFERING CIRCULAR.

Confirmation of your Representation: In order to be eligible to view the attached Supplemental Offering Circular or make an investment decision with respect to the securities, investors must not be located in the United States. The attached Supplemental Offering Circular is being sent at your request and by accepting the e-mail and accessing the attached Supplemental Offering Circular, you shall be deemed to have represented to us (1) that the e-mail address that you gave us and to which this e-mail has been delivered is not located in the United States, its territories or possessions, (2) that you consent to delivery of the attached Supplemental Offering Circular and any amendments or supplements thereto by electronic transmission, (3) to the extent you purchase the securities described in the attached Supplemental Offering Circular, you will be doing so pursuant to Regulation S under the Securities Act, and (4) that you consent to delivery of the attached Supplemental Offering Circular.

You are reminded that the attached Supplemental Offering Circular has been delivered to you on the basis that you are a person into whose possession the attached Supplemental Offering Circular may be lawfully delivered in accordance with the laws of the jurisdiction in which you are located and you may not, nor are you authorised to, deliver the attached Supplemental Offering Circular, electronically or otherwise, to any other person. If you have gained access to this transmission contrary to the foregoing restrictions, you are not allowed to purchase any of the securities described in the attached Supplemental Offering Circular.

Restrictions: The attached Supplemental Offering Circular is being furnished in connection with an offering exempt from registration under the Securities Act solely for the purpose of enabling a prospective investor to consider the purchase of the securities described herein.

The materials relating to the offering of securities to which the attached Supplemental Offering Circular relates do not constitute, and may not be used in connection with, an offer or solicitation in any place where offers or solicitations are not permitted by law. If a jurisdiction requires that the offering be made by a licensed broker or dealer and the underwriters or any affiliate of the underwriters is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by the underwriters or such affiliate on behalf of the Issuer (as defined in the attached Supplemental Offering Circular) in such jurisdiction.

The attached Supplemental Offering Circular has been sent to you in an electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently none of the Issuer, DBS Bank Ltd., Oversea-Chinese Banking Corporation Limited, United Overseas Bank Limited or Industrial and Commercial Bank of China Limited, Singapore Branch (the "**Managers**"), any person who controls any of them, or any director, officer, employee, adviser or agent of any of them, or any affiliate of any such person accepts any liability or responsibility whatsoever in respect of any difference between the attached Supplemental Offering Circular distributed to you in electronic format and the hard copy version available to you on request from the Managers.

Actions that You May Not Take: If you receive this document by e-mail, you should not reply by e-mail to this notice, and you may not purchase any securities by doing so. Any reply e-mail communications, including those you generate by using the "Reply" function on your e-mail software, will be ignored or rejected.

You are responsible for protecting against viruses and other destructive items. If you receive this document by e-mail, your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

The information in this preliminary supplemental offering circular is not complete and may be changed. This preliminary supplemental offering circular is not an offer to sell these securities nor does it seek an offer to buy these securities in any jurisdiction where such offer or sale is permitted.

SUBJECT TO COMPLETION, DATED 19 FEBRUARY 2024 STRICTLY CONFIDENTIAL
PRELIMINARY SUPPLEMENTAL OFFERING CIRCULAR

SUPPLEMENTAL OFFERING CIRCULAR

SGX Group

SINGAPORE EXCHANGE LIMITED

(incorporated in the Republic of Singapore on 21 August 1999)
(Company Registration Number: 199904940D)

S$[•] [•] per cent. Notes due [•]
under
the S$1,500,000,000
Multicurrency Debt Issuance Programme

This Supplemental Offering Circular is supplemental to, forms part of and must be read in conjunction with, the Offering Circular dated 17 October 2019 (the "**Original Offering Circular**" and, together with this Supplemental Offering Circular, the "**Offering Circular**") and all other documents that are deemed to be incorporated by reference therein in relation to the S$1,500,000,000 Multicurrency Debt Issuance Programme (the "**Programme**") of Singapore Exchange Limited (the "**Issuer**") in connection with the Issuer's proposed issuance of Singapore dollar denominated Notes under the Programme (the "**Notes**").

Save to the extent defined in this Supplemental Offering Circular, terms defined or otherwise attributed meanings in the Original Offering Circular have the same meaning when used in this Supplemental Offering Circular. References in the Original Offering Circular and this Supplemental Offering Circular to "this Offering Circular" and "the Offering Circular" mean the Original Offering Circular as supplemented by this Supplemental Offering Circular. To the extent that the Original Offering Circular is inconsistent with this Supplemental Offering Circular, the terms of this Supplemental Offering Circular shall prevail.

An investment in Notes issued under the Programme involves certain risks. For a discussion of these risks see "*Risk Factors*" in the Original Offering Circular, as supplemented by "*Risk Factors*" in this Supplemental Offering Circular.

Approval in-principle has been received from the Monetary Authority of Singapore (the "**MAS**") for permission to deal in, and for the listing of, the Notes on the Official List of the Singapore Exchange Securities Trading Limited (the "**SGX-ST**"). Approval in-principle from the MAS, admission to the Official List of the SGX-ST, and listing of the Notes on the SGX-ST are not to be taken as an indication of the merits of the Issuer, the Group (as defined below), the Programme or the Notes. The MAS assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained in this Offering Circular. Investors are advised to read and understand the contents of this document before investing. If in doubt, investors should consult their advisers.

Moody's Investors Service, Inc. ("**Moody's**") has assigned the Issuer "Aa2" long-term local and foreign currency issuer ratings with a stable outlook. Moody's has also assigned "Aa2" long-term local and foreign currency ratings to the senior unsecured component of the Programme. The Notes to be issued are unrated. A rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, revision or withdrawal at any time by the assigning rating agency.

The Notes have not been and will not be registered under the Securities Act or with any securities regulatory authority of any state or other jurisdiction of the United States, and are subject to certain restrictions on transfer, see "*Subscription and Sale".* The Notes are being offered and sold outside the United States in reliance on Regulation S.

Joint Lead Managers

DBS Bank Ltd. **OCBC** **United Overseas Bank**

Co-Manager

ICBC Singapore

The date of this Supplemental Offering Circular is [•] 2024

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NOTICE TO INVESTORS

The Issuer accepts responsibility for the information contained in this Supplemental Offering Circular. The Issuer, having made all reasonable enquiries, confirms that, to the best of its knowledge and belief, as at the date of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement, (i) this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement contain all information with regard to the Issuer, the Issuer and the subsidiaries of the Issuer taken as a whole (together, the "**Group**") and the Notes which is material in the context of the issue and offering of the Notes, (ii) the statements contained in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement relating to the Issuer and the Group are in every material particular true and accurate and not misleading, (iii) the opinions, expectations and intentions expressed in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement with regard to the Issuer and the Group are honestly held, have been reached after considering all relevant circumstances and are based on reasonable assumptions, (iv) there are no other facts in relation to the Issuer, the Group or the Notes the omission of which would make any statement in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement misleading in any material respect, and (v) all reasonable enquiries have been made by the Issuer to ascertain such facts and to verify the accuracy of all such information and statements in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement.

This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement are to be read in conjunction with all documents which are incorporated herein by reference (see "*Documents Incorporated by Reference*"). This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement shall be read and construed on the basis that such documents are incorporated in, and form part of, this Offering Circular.

This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement have been prepared by the Issuer for use in connection with the offer and sale of the Notes outside the United States. The Issuer and the Managers reserve the right to reject any offer to purchase the Notes, in whole or in part, for any reason. This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement do not constitute an offer to any person in the United States. Distribution of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement to any person within the United States, is unauthorised and any disclosure without the prior written consent of the Issuer of any of its contents to any person within the United States, is prohibited.

No person has been authorised to give any information or to make any representation other than those contained in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement in connection with the issue or sale of the Notes and, if given or made, such information or representation must not be relied upon as having been authorised by the Issuer or the Managers, the Trustee, or any of the Agents.

Save as expressly stated in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement, nothing contained herein is, or may be relied upon as, a promise or representation as to the future performance or policies of the Issuer or the Group. Neither the delivery of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement (or any part thereof) nor any sale, offering or purchase made in connection herewith shall, under any circumstances, create any implication that there has been no change in the prospects, results of operation or general affairs of the Issuer or the Group since the date hereof or the date upon which this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement have been most recently amended or supplemented or that there has been no adverse change in the financial position of the Issuer or the

Group since the date hereof or the date upon which this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement have been most recently amended or supplemented or that any other information supplied in connection with the Programme or the Notes is correct as of any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same.

The distribution and publication of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement or any such other document or information and the offering or sale of the Notes in certain jurisdictions may be restricted by law. Persons who distribute or publish this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement or any such other document or information or into whose possession this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement or any such other document or information comes are required by the Issuer and the Managers to inform themselves about and to observe any such restrictions and all applicable laws, orders, rules and regulations. In particular, there are restrictions on the distribution of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement and the offer or sale of the Notes in the United States, the European Economic Area, the United Kingdom, Hong Kong, Singapore and Japan (see "*Subscription and Sale*").

THE NOTES HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE SECURITIES ACT OR WITH ANY SECURITIES REGULATORY AUTHORITY OF ANY STATE OR OTHER JURISDICTION OF THE UNITED STATES, AND ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER, SEE "SUBSCRIPTION AND SALE". THE NOTES ARE BEING OFFERED AND SOLD OUTSIDE THE UNITED STATES IN RELIANCE ON REGULATION S. FOR A DESCRIPTION OF THESE AND CERTAIN FURTHER RESTRICTIONS ON OFFERS, SALES AND TRANSFERS OF SECURITIES AND DISTRIBUTION OF THE OFFERING CIRCULAR, SEE "SUBSCRIPTION AND SALE" IN THE ORIGINAL OFFERING CIRCULAR.

THE NOTES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE U.S. SECURITIES AND EXCHANGE COMMISSION, ANY STATE SECURITIES COMMISSION IN THE UNITED STATES OR ANY OTHER U.S. REGULATORY AUTHORITY, NOR HAS ANY OF THE FOREGOING AUTHORITIES PASSED UPON OR ENDORSED THE MERITS OF THE OFFERING OF THE NOTES OR THE ACCURACY OR THE ADEQUACY OF THIS SUPPLEMENTAL OFFERING CIRCULAR (WHICH IS TO BE READ TOGETHER WITH THE ORIGINAL OFFERING CIRCULAR) AND THE PRICING SUPPLEMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENCE IN THE UNITED STATES.

This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement and/or any other document or information (or any part thereof) delivered or supplied under or in relation to the Programme or the Notes shall not be deemed to constitute an offer of, or an invitation by or on behalf of the Issuer or the Managers to subscribe for, or purchase, the Notes and may not be used for the purpose of an offer to, or a solicitation by, anyone in any jurisdiction or in any circumstances in which such offer or solicitation is not authorised or is unlawful.

Any person(s) who is invited to purchase or subscribe for the Notes or to whom this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement are sent shall not make any offer or sale, directly or indirectly, of the Notes or distribute or cause to be distributed any document or other material in connection therewith in any country or jurisdiction except in such manner and in such circumstances as will result in compliance with any applicable laws and regulations.

This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement and any other documents or materials in relation to the issue, offering or sale of the Notes have been prepared solely for the purpose of the initial sale by the Managers of the Notes to be issued pursuant to the Programme. This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement are made available to the recipients thereof on the basis that they are persons falling within the ambit of Sections 274 and/or 275 of the Securities and Futures Act 2001 of Singapore, as amended or modified from time to time (the "**SFA**") and, in all cases, may not be relied upon by any person other than persons to whom the Notes are sold or with whom they are placed by the Managers as aforesaid or for any other purpose. Recipients of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement shall not reissue, circulate or distribute this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement or any part thereof in any manner whatsoever.

The Managers, the Trustee and the Agents have not separately verified the information contained in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement. None of the Managers, the Trustee, the Agents or any person who controls any of them, or any of their respective officers, employees, advisers or agents, or any affiliate of any such person is making any representation or warranty expressed or implied as to the merits of the Notes or the subscription for, purchase or acquisition thereof, the creditworthiness or financial condition or otherwise of the Issuer or the Group. Further, none of the Managers, the Trustee, the Agents or any person who controls any of them, or any of their respective officers, employees, advisers or agents, or any affiliate of any such person makes any representation or warranty as to the Issuer or the Group or as to the accuracy, reliability or completeness of the information set out herein (including, without limitation, the legal and regulatory requirements pertaining to Sections 274, 275 or any other provisions of the SFA and the documents which are incorporated by reference in, and form part of, this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement.

To the fullest extent permitted by law, none of the Managers, the Trustee, the Agents or any person who controls any of them, or any of their respective officers, employees, advisers or agents, or any affiliate of any such person, accepts any responsibility for the contents of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement or for any other statement made or purported to be made by the Managers, the Trustee or the Agents or on their behalf in connection with the Issuer, the Group, the Programme or the issue and offering of the Notes. Each of the Managers, the Trustee and the Agents and each person who controls any of them, and each of their respective officers, employees, advisers and agents, and each affiliate of any such person accordingly disclaims all and any liability whether arising in tort or contract or otherwise (save as referred to above) which it might otherwise have in respect of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement or any such statement.

Neither this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement nor any other document or information (or any part thereof) delivered and supplied under or in relation to the Programme or the Notes are intended to provide the basis of any credit or other evaluation of the Issuer or the Group and should not be considered as a recommendation by any of the Issuer, the Managers, the Trustee, the Agents or any person who controls any of them, or any of their respective officers, employees, advisers or agents, or any affiliate of any such person that any recipient of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement or any other financial statements should purchase the Notes. Each potential purchaser of the Notes shall make its own assessment of the foregoing and other relevant matters including the financial condition and affairs and its appraisal of the creditworthiness of the Issuer and the Group, and obtain its own independent legal or other advice thereon, and its investment shall be deemed to be based on its own independent investigation of the financial condition and affairs and its appraisal of the creditworthiness of the Issuer and the Group. Accordingly, notwithstanding anything herein, none of the Issuer, its subsidiaries and associated companies (if any), the Managers, the Trustee, the Agents or any person who controls any of them, or any of their respective officers, employees, advisers or agents, or any affiliate of any such person shall be held responsible for any loss or damage suffered or incurred by the recipients of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement or such other document or information (or such part thereof) as a result of or arising from anything expressly or implicitly contained in or referred to in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular), the Pricing Supplement or such other document or information (or such part thereof and the same shall not constitute a ground for rescission of any purchase or acquisition of any of the Notes by a recipient of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular), the Pricing Supplement or such other document or information (or such part thereof). None of the Issuer, its subsidiaries and associated companies (if any), the Managers, the Trustee, the Agents or any person who controls any of them, or any of their respective officers, employees, advisers or agents, or any affiliate of any such person undertakes to review the financial condition or affairs of the Issuer or the Group during the life of the arrangements contemplated by this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement nor to advise any investor or potential investor in the Notes of any information coming to the attention of any of the Managers, the Trustee, the Agents or any person who controls any of them, or any of their respective officers, employees, advisers or agents, or any affiliate of any such person.

PRIIPs REGULATION/PROHIBITION OF SALES TO EEA RETAIL INVESTORS – The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the EEA. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently, no key information document required by Regulation (EU) No 1286/2014 (the "**PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

UK PRIIPs REGULATION / PROHIBITION OF SALES TO UK RETAIL INVESTORS – The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom ("**UK**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 (the "**EUWA**"); or (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000 (the "**FSMA**") and any rules or regulations made under the FSMA to implement the Insurance Distribution Directive, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA. Consequently no key information document required by the PRIIPs Regulation as it forms part of domestic law by virtue of the EUWA (the "**UK PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

Singapore Securities and Futures Act Product Classification - In connection with Section 309B of the SFA and the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore (the "**CMP Regulations 2018**"), the Issuer has determined, and hereby notifies all relevant persons (as defined in Section 309A(1) of the SFA), that the Notes are 'prescribed capital markets products' (as defined in the CMP Regulations 2018) and are Excluded Investment Products (as defined in the MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Any purchase or acquisition of the Notes is in all respects conditional on the satisfaction of certain conditions set out in the Dealer Agreement and the Subscription Agreement and the issue of the Notes by the Issuer pursuant to the Dealer Agreement and the Subscription Agreement. Any offer, invitation to offer or agreement made in connection with the purchase or acquisition of the Notes or pursuant to this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement shall (without any liability or responsibility) on the part of the Issuer or any of the Managers lapse and cease to have any effect if (for any other reason whatsoever) the Notes are not issued by the Issuer pursuant to the Dealer Agreement and the Subscription Agreement.

This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement do not describe all of the risks and investment considerations (including those relating to each investor's particular circumstances) of an investment in the Notes. Each potential purchaser of the Notes should refer to and consider carefully the Pricing Supplement for the Notes, which may describe additional risks and investment considerations associated with the Notes. The risks and investment considerations identified in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement are provided as general information only.

Investors should consult their own financial, tax, accounting and legal advisers as to the risks and investment considerations arising from an investment in an issue of the Notes and should possess the appropriate resources to analyse such investment and the suitability of such investment in their particular circumstances.

When acting as agent on behalf of a disclosed or undisclosed client when purchasing, or making or accepting an offer to purchase, any Notes (or beneficial interests therein) from the Issuer and/or the Managers, the foregoing representations, warranties, agreements and undertakings will be given by and be binding upon both of such agent and their underlying client.

STABILISATION

In connection with the issue of the Notes, the Manager(s) named as the stabilisation coordinator(s) (the "**Stabilisation Coordinator(s)**") (or any person acting on behalf of any Stabilisation Coordinator (s)) in the Pricing Supplement may over-allot the Notes or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail. However, there is no assurance that the Stabilisation Coordinator(s) (or persons acting on behalf of the Stabilisation Coordinator(s)) will undertake stabilisation action. Any stabilisation action may begin on or after the date on which adequate public disclosure of the terms of the offer of the Notes is made and, if begun, may cease at any time, but it must end no later than the earlier of 30 days after the issue date of the Notes and 60 days after the date of the allotment of the Notes. Any stabilisation action or over-allotment must be conducted by the relevant Stabilisation Coordinator(s) (or any person acting on behalf of any Stabilisation Coordinator(s)) in accordance with all applicable laws, rules and regulations.

ROUNDING OF AMOUNTS

Certain monetary amounts and percentages in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement have been subject to rounding adjustments; accordingly, figures shown as totals in certain tables may not be an arithmetic aggregation of the figures which precede them. Any discrepancies in the tables included herein between the listed amounts and totals thereof are due to rounding.

INDUSTRY AND MARKET DATA

Market data and certain industry forecasts and other data used throughout this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement were obtained or derived from internal surveys, market research, publicly available information and/or industry publications. Industry publications generally state that the information that they contain has been obtained from sources believed to be reliable but that the accuracy and completeness of that information are not guaranteed. Similarly, internal surveys, industry forecasts and market research, while believed to be reliable, have not been independently verified, and none of the Issuer, the Managers, the Trustee, the Agents or any person who controls any of them, or any of their respective officers, employees, advisers or agents, or any affiliate of any such person makes any representation or warranty, express or implied, as to the reliability, accuracy or completeness of such information.

CERTAIN DEFINED TERMS AND CONDITIONS

In this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement, unless otherwise specified or the context otherwise requires, all references to the "**MAS**" are references to the Monetary Authority of Singapore, the central bank of Singapore. All references to the "**SGX**" are references to the Issuer or, where the context so requires, the Issuer and its subsidiaries taken as a whole.

All references to "**Singapore dollars**", "**SGD**" and "**S$**" are to the lawful currency for the time being of Singapore and all references to "**U.S. dollars**", "**USD**" and "**U.S.$**" are to the lawful currency for the time being of the United States of America.

References in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement to "**Singapore**" are references to the Republic of Singapore. All references to the "**United States**" or the "**U.S.**" are to the United States of America and references to the "**PRC**" are to the People's Republic of China, excluding the Hong Kong Special Administrative Region, the Macau Special Administrative Region and Taiwan.

The expression "**Substantial Shareholder**" shall have the meanings ascribed to it in the SFA.

In this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement, unless the contrary intention appears, a reference to a law or a provision of a law is a reference to that law or provision as extended, amended or re-enacted.

FORWARD-LOOKING STATEMENTS

This Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement include forward-looking statements regarding, amongst other things, the Group's business, results of operations, financial conditions, cash flow, future expansion plans and business strategy. These forward-looking statements can be identified by the use of forward-looking terminology, including the words and terms "believe", "expect", "plan", "anticipate", "intend", "aim", "project", "seek", "should", “may”, "will", "would", "could", "schedule", "estimate" or, in each case, their negative or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. They appear in a number of places throughout this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement and include statements regarding the Issuer's intentions, beliefs or current expectations concerning, among other things, the Group's results of operations, financial condition, liquidity, prospectus, growth, strategies and the industries in which the Group operates.

By their nature, forward-looking statements are subject to numerous assumptions, risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Investors are cautioned that forward-looking statements are not guarantees of the Group's future performance and their actual results of operations, financial condition and liquidity, and the development of the industries in which they operate, may differ materially from those made in or suggested by the forward-looking statements contained in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement. In addition, even if the Group's results of operations, financial condition and liquidity and the development of the industries in which the Group operates are consistent with the forward-looking statements contained in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement, those results or developments may not be indicative of results or developments in subsequent periods.

The cautionary statements set forth above should be considered in connection with any subsequent written or oral forward-looking statements that the Issuer or persons acting on its behalf may issue. The Issuer does not undertake any obligation to review or confirm analysts' expectations or estimates or to release publicly any revisions to any forward-looking statements to reflect events or circumstances after the date of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement.

Investors should read the risk factors described in the "Risk Factors" section of the Offering Circular to better understand the risks and uncertainties inherent in the Issuer's business and underlying any forward-looking statements.

Any forward-looking statements that the Issuer makes in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement speak only as at the date of this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement, and the Issuer undertakes no obligation to update such statements. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance and should only be viewed as historical data.

PRESENTATION OF FINANCIAL INFORMATION

Presentation of Financial Information

The audited consolidated financial information of the Group as at and for the financial years ended 30 June 2021, 2022 and 2023 included in this Supplemental Offering Circular has been extracted or derived from the Group's audited consolidated financial statements as at and for the financial years ended 30 June 2021, 2022 and 2023 (together, the "**Audited Consolidated Financial Statements**"). The reviewed (but unaudited) consolidated interim financial information of the Group as at and for the half years ended 31 December 2022 and 2023 included in this Supplemental Offering Circular has been extracted or derived from the reviewed (but unaudited) consolidated interim financial statements of the Group as at and for the half years ended 31 December 2022 and 2023 (the "**Reviewed Interim Financial Statements**"). The Audited Consolidated Financial Statements and the Reviewed Interim Financial Statements are incorporated by reference in this Supplemental Offering Circular.

The Audited Consolidated Financial Statements have been prepared in accordance with Singapore Financial Reporting Standards (International) issued by the Singapore Accounting Standards Council, as amended from time to time ("**SFRS(I)**") and have been audited by KPMG LLP ("**KPMG**"). The Reviewed Interim Financial Statements have been prepared in accordance with SFRS(I) 1-34 Interim Financial Reporting and have been reviewed by KPMG.

Copies of the financial statements of the Group deemed to be incorporated by reference in this Supplemental Offering Circular (which is to be read together with the Original Offering Circular) and the Pricing Supplement may be obtained without charge from the website of the SGX-ST (www.sgx.com).

Unless the context otherwise requires, financial information in this Supplemental Offering Circular is presented on a consolidated basis.

AMENDMENTS TO THE ORIGINAL OFFERING CIRCULAR

The following sections in the Original Offering Circular are deleted and/or disapplied in their entirety:

- "*Presentation of Financial Statements*" and "*Impact of Reorganisation on Presentation of Financial Statements*" on pages vi and vii of the Original Offering Circular;
- "*Summary of the Issuer*" on pages 1 to 9 of the Original Offering Circular;
- "*Operating and Financial Review and Prospects*" on pages 67 to 80 of the Original Offering Circular;
- "*Internal Reorganisation*" on pages 175 to 176 of the Original Offering Circular; and
- "*Index to Financial Statements*" on pages F-1 to F-219 of the Original Offering Circular.

SELECTED CONSOLIDATED FINANCIAL INFORMATION AND OTHER DATA

The section titled "Selected Financial Information" on pages 37 to 40 of the Original Offering Circular shall be deleted in its entirety and replaced by the following:

"The audited consolidated financial information of the Group as at and for the financial years ended 30 June 2021, 2022 and 2023 and the reviewed (but unaudited) consolidated interim financial information of the Group as at and for the half years ended 31 December 2022 and 2023 included in this Supplemental Offering Circular have been extracted from the Audited Consolidated Financial Statements and the Reviewed Interim Financial Statements of the Group, respectively, which are incorporated by reference in this Supplemental Offering Circular.

The Audited Consolidated Financial Statements have been prepared in accordance with SFRS(I) and have been audited by KPMG.

The Reviewed Interim Financial Statements have been prepared in accordance with SFRS(I) 1-34 Interim Financial Reporting and have been reviewed by KPMG The Reviewed Interim Financial Statements have not been audited by KPMG. Investors should not rely on such unaudited financial information to provide the same quality of information that audited financial information would provide. The financial results for interim periods are not necessarily indicative of results to be expected for future interim periods or for the full year.

Prospective investors should read the selected consolidated financial information below in conjunction with the Group's (i) Audited Consolidated Financial Statements and the related notes thereto and (ii) Reviewed Interim Financial Statements and the related notes thereto, in each case, incorporated by reference in this Supplemental Offering Circular. Historical results are not necessarily indicative of results that may be achieved in any future period.

Statement of Comprehensive Income

	For the financial year ended 30 June			For the half year ended 31 December	
	Group				
	2021	2022	2023	2022	2023
	Audited			Reviewed (but unaudited)	
	S$'000			*S$'000*	
Operating revenue	1,055,953	1,099,041	1,194,408	571,444	592,247
Operating expenses	430,716	464,935	506,543	237,372	247,639
Earnings before interest, tax, depreciation and amortisation	625,237	634,106	687,865	334,072	344,608
Depreciation and amortisation	94,523	96,658	98,322	50,014	48,464
Operating profit	530,714	537,448	589,543	284,058	296,144
Non-operating items	10,048	17,674	99,836	61,239	48,258
Profit before tax and share of results of associated companies and joint ventures	540,762	555,122	689,379	345,297	344,402
Share of results of associated companies and joint ventures, net of tax	(4,286)	(10,534)	(15,557)	(10,283)	(7,349)
Profit before tax	536,476	544,588	673,822	335,014	337,053
Tax	(90,699)	(92,687)	(103,257)	(50,384)	(55,695)
Net profit after tax	445,777	451,901	570,565	284,630	281,358

	For the financial year ended 30 June			For the half year ended 31 December	
	Group				
	2021	2022	2023	2022	2023
	Audited			Reviewed (but unaudited)	
	S$'000			S$'000	
Other comprehensive income:					
Items that may be reclassified subsequently to profit or loss:					
Foreign exchange translation					
– Exchange differences arising during the year/period	9,503	(13)	(10,095)	(18,924)	(14,927)
Cash flow hedges					
– Fair value gains/(losses) arising during the year/period	2,227	(2,260)	(109)	1,933	1,739
– Transferred to profit or loss	(3,173)	1,112	626	2,804	351
Financial assets, at FVOCI					
– Fair value (losses)/gains arising during the year/period	(140)	(936)	(267)	277	970
– Transferred to profit or loss	(411)	—	—	—	—
Items that will not be reclassified subsequently to profit or loss:					
Financial assets, at FVOCI					
– Fair value gains/(losses) arising during the year/period	23,073	65,487	(61,634)	(63,200)	(3,658)
Foreign Exchange Translation					
– Exchange differences arising during the year/period	53	(305)	39	43	(294)
Other comprehensive income for the financial year/financial period, net of tax	31,132	63,085	(71,440)	(77,067)	(15,819)
Total comprehensive income for the financial year/financial period	**476,909**	**514,986**	**499,125**	**207,563**	**265,539**
Total comprehensive income attributable to equity holders of the Issuer	**476,485**	**514,788**	**499,416**	**207,448**	**266,071**
Earnings per share based on net profit attributable to equity holders of the Issuer (in cents per share)					
Basic	41.6	42.2	53.4	26.6	26.3
Diluted	41.1	41.0	51.8	25.8	25.5

Statement of Financial Position

	As at 30 June			As at 31 December
	Group			
	2021	2022	2023	2023
	Audited			Reviewed (but unaudited)
	S$'000			S$'000
ASSETS				
Current assets				
Cash and cash equivalents	1,060,029	997,747	1,033,183	939,575
Trade and other receivables	748,749	1,060,820	1,111,368	1,155,399
Derivative financial instruments	314	17	1,008	2,106
Financial assets, at FVOCI	40,936	94,155	33,917	126,427
Total current assets	1,850,028	2,152,739	2,179,476	2,223,507
Non-current assets				
Financial assets, at FVOCI	146,467	239,064	162,919	158,404
Financial assets, at FVPL	—	293,545	353,866	380,149
Investment property	26,161	18,059	15,231	14,956
Property, plant and equipment	50,400	34,229	41,178	36,671
Software	165,843	166,304	151,770	147,069
Right-of-use assets	69,158	50,938	33,931	30,496
Intangible assets	122,393	117,796	91,628	76,790
Goodwill	541,233	708,290	702,865	689,139
Investment in associated companies	40,964	47,549	38,226	35,972
Investment in joint ventures	9,570	10,542	10,140	6,861
Loan receivable	—	9,036	—	—
Other assets	333	109	109	109
Total non-current assets	1,172,522	1,695,461	1,601,863	1,576,616
Total assets	3,022,550	3,848,200	3,781,339	3,800,123
EQUITY AND LIABILITIES				
Capital and reserves attributable to the Issuer's equity holders				
Share capital	430,413	427,365	423,056	420,476
Capital reserve	3,989	3,989	3,989	3,989
Treasury shares	(25,189)	(34,640)	(32,447)	(12,796)
Cash flow hedge reserve	(601)	(1,749)	(1,232)	858
Currency translation reserve	5,676	5,663	(4,432)	(19,359)
Fair value reserve	75,913	140,464	82,211	79,523
Securities clearing fund reserve	25,000	25,000	25,000	25,000

	As at 30 June			As at 31 December
	Group			
	2021	2022	2023	2023
	Audited			Reviewed (but unaudited)
	S$'000			S$'000
Derivatives clearing fund reserve	34,021	34,021	34,021	34,021
Share-based payment reserve	30,152	29,595	30,881	23,855
Other reserve	(40,506)	(40,506)	(40,506)	(40,506)
Retained profits	760,530	869,767	1,089,582	1,189,059
Proposed dividends	85,511	85,439	90,779	—
	1,384,909	1,544,408	1,700,902	1,704,120
Non-controlling interests	4,859	5,057	2,707	1,664
Total equity	1,389,768	1,549,465	1,703,609	1,705,784
Non-current liabilities				
Loans and borrowings	467,761	693,935	340,040	330,711
Lease liabilities	51,056	30,938	14,828	15,347
Deferred tax liabilities	66,456	79,468	55,046	50,477
Other liabilities	41,390	52,212	29,469	24,668
Total non-current liabilities	626,663	856,553	439,383	421,203
Current liabilities				
Trade and other payables	867,770	1,262,354	1,136,571	1,086,732
Dividend payable	—	—	—	90,968
Derivative financial instruments	1,150	2,090	2,599	118
Loans and borrowings	—	41,858	351,883	349,953
Lease liabilities	20,366	22,140	20,470	16,461
Taxation	99,634	99,939	112,812	114,527
Provisions	17,199	13,801	14,012	14,377
Total current liabilities	1,006,119	1,442,182	1,638,347	1,673,136
Total liabilities	1,632,782	2,298,735	2,077,730	2,094,339
Net assets	1,389,768	1,549,465	1,703,609	1,705,784

Statement of Cash Flows

	For the financial year ended 30 June			For the half year ended 31 December	
	Group				
	2021	**2022**	**2023**	**2022**	**2023**
	Audited			Reviewed (but unaudited)	
	S$'000			*S$'000*	
Cash flows from operating activities					
Profit before tax and share of results of associated companies and joint ventures	540,762	555,122	689,379	345,297	344,402
Adjustments for:					
– Depreciation and amortisation	94,523	96,658	98,322	50,014	48,464
– Share-based payment expense	17,883	14,980	17,874	9,217	10,663
– Finance charges..	4,782	7,384	7,251	3,754	3,457
– Net losses/(gains) on disposal of property, plant and equipment and software	25	1,832	708	(1)	—
– Impairment loss on investment in associated companies..	2,056	—	—	—	—
– Impairment loss on purchased intangible assets	—	—	—	—	5,671
– Impairment losses on non-financial assets	—	—	11,626	—	—
– Net fair value gains on financial assets, at FVPL	—	—	(39,748)	(27,007)	(35,184)
– Interest income..	(5,109)	(3,310)	(28,096)	(10,188)	(18,555)
– Fair value gain on forward liability to acquire non-controlling interests	—	—	(23,306)	—	(4,374)
– Fair value gain on contingent consideration......	—	—	(14,880)	(14,880)	—
– Other non-cash income	—	—	(10,000)	(10,000)	—
– Net (gains)/losses on changes in interests in associated companies..	(2,164)	(5,289)	(1,707)	(1,727)	49
– Grant income for property, plant and equipment and software...	—	—	(111)	—	—
– Net gain on previously held interest in an associated company...	(16,663)	—	—	—	—
– Dividend income from financial assets, at FVOCI	(826)	(897)	—	—	—
Operating cash flow before working capital change	635,269	666,480	707,312	344,479	354,593
Changes in::					
– Cash committed for National Electricity Market of Singapore...	(7,751)	(43,930)	(23,501)	(1,210)	61,804
– Cash committed for Singapore Exchange Derivatives Clearing Limited – Derivatives Clearing Fund...	—	25,000	(6,784)	(6,703)	(12,312)
– Cash committed for Securities Clearing Fund...	—	—	20,000	—	—
– Trade and other receivables	12,635	(311,326)	(33,894)	162,883	(51,715)
– Trade and other payables................................	22,175	346,397	(117,527)	(224,641)	(48,366)

	For the financial year ended 30 June			For the half year ended 31 December	
	Group				
	2021	**2022**	**2023**	**2022**	**2023**
	Audited			Reviewed (but unaudited)	
	S$'000			*S$'000*	
Cash generated from operations......................	662,328	682,621	545,606	274,808	304,004
Income tax paid..	(109,390)	(99,094)	(98,908)	(92,822)	(54,741)
Net cash generated from operating activities..	552,938	583,527	446,698	181,986	249,263
Cash flows from investing activities					
Acquisition of subsidiary, net of cash acquired	(155,703)	—	—	—	—
Acquisition of business, net of cash acquired	—	(166,509)	—	—	—
Acquisition of additional interest in joint venture...	—	—	—	(2,358)	(2,358)
Purchase of financial assets, at FVPL	—	(288,579)	(4,729)	(1,272)	(787)
Purchase of financial assets, at FVOCI	(42,997)	(119,479)	(260,866)	(213,381)	(105,869)
Purchase of property, plant and equipment and software	(45,283)	(44,150)	(54,304)	(18,873)	(19,048)
Loan to external party...	—	(9,036)	—	—	—
Investments in associated companies	(5,311)	(6,763)	(13,349)	—	—
Investments in joint ventures	(7,022)	(7,364)	(4,731)	—	—
Proceeds from loan repayment from external party	—	—	9,036	9,036	—
Proceeds from financial assets, at FVOCI	52,289	55,000	322,135	193,876	14,396
Proceeds from sale of long lease of building........	—	31,056	—	—	—
Additional payment on completion adjustment for previously acquired subsidiary............................	(5,178)	—	—	—	—
Interest received...	6,972	3,378	16,423	4,729	19,733
Grant income received for property, plant and equipment and software	—	—	1,019	—	—
Dividend received from associated company.......	3,428	1,830	1,710	—	—
Dividend received from financial assets, at FVOCI	842	897	—	—	—
Net cash from/(used in) investing activities	(197,963)	(549,719)	12,344	(28,243)	(93,933)
Cash flows from financing activities					
Dividends paid..	(342,493)	(342,233)	(344,151)	(171,158)	(182,441)
Net proceeds from issue of medium term notes...	—	334,649	—	—	—
Net proceeds from issue of convertible bonds	386,440	—	—	—	—
Proceeds from borrowings..................................	495,197	82,014	—	—	—
Purchase of treasury shares...............................	(15,930)	(27,719)	(18,613)	(12,403)	—
Repayment of lease liabilities	(22,509)	(23,142)	(24,429)	(12,892)	(12,290)
Repayment of borrowings...................................	(708,492)	(129,928)	(41,241)	(41,241)	—
Interest paid	(2,134)	(2,340)	(4,452)	(2,395)	(2,094)
Net cash used in financing activities	(209,921)	(108,699)	(432,886)	(240,089)	(196,825)

	For the financial year ended 30 June			For the half year ended 31 December	
			Group		
	2021	**2022**	**2023**	**2022**	**2023**
		Audited		**Reviewed (but unaudited)**	
		S$'000		*S$'000*	
Net increase/(decrease) in cash and cash equivalents	145,054	(74,891)	26,156	(86,346)	(41,495)
Cash and cash equivalents at beginning of financial year/financial period	686,430	833,365	752,153	752,153	777,304
Effects of currency translation on cash and cash equivalents..	1,881	(6,321)	(1,005)	1,037	(2,621)
Cash and cash equivalents at end of financial year/financial period...	833,365	752,153	777,304	666,844	733,188

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RISK FACTORS

The sections titled "Risks relating to the Group's business" and "Risks relating to regulation" on pages 41 to 56 of the Original Offering Circular shall be deleted in their entirety and replaced by the following:

"An investment in the Notes involves a number of risks. Investors should carefully consider all the information contained in this Supplemental Offering Circular, including the risk factors described below, before deciding to invest in the Notes. The occurrence of any of the following events could materially affect, directly or indirectly, the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes. All or part of an investment in the Notes could be lost.

Risks Relating to the Group's Business

Broad market trends and other factors beyond the Group's control could negatively impact the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group operates in a global market that is subject to various political, economic, social, environmental and health events that are beyond its control and may adversely impact its business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group's business, financial condition and results of operations are highly dependent upon the levels of activity on the Exchanges. A significant portion of the Group's revenue depends, either directly or indirectly, on listing, trading, clearing and settlement transaction-based fees that in turn, depend on trading volume, both in absolute terms and relative to other market centres. Trading volume in the Group's markets and products is largely influenced by the degree of volatility in prices and levels of the underlying commodities, securities, indices, financial benchmarks or other instruments in the Asian and global financial markets. These are in turn primarily influenced by economic, political and market conditions in Singapore and Asia as well as the United States, Europe and elsewhere in the world that are beyond the Group's control. Should there be a sustained period of stability in the prices or levels of the underlying commodities, securities, indices, financial benchmarks, exchange rates or other instruments of the Group's products, the Group may experience lower trading volumes, slower growth and/or declines in revenues.

The Group's financial condition and results of operations are also dependent upon the success of the Group's operating segments (which are (i) Fixed Income, Currencies and Commodities ("**FICC**"), (ii) Equities – Cash, (iii) Equities – Derivatives and (iv) Platform and Others ("**Platform**"), as well as the level of participation and commercial well-being of the Group's customers, namely financial intermediaries such as brokers, and their respective clients, both locally and internationally. The relative attractiveness of the Group's products traded on the Exchanges, and the relative attractiveness of the Exchanges as markets on which these products are traded are also important to the Group's success. All of these variables are primarily influenced by economic, political and market conditions in Singapore and Asia as well as the United States, Europe and elsewhere in the world that are beyond the Group's control.

Economic and geopolitical factors that may materially adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes and that are beyond the Group's control include:

- legislative and regulatory changes, including the potential for regulatory arbitrage among regulated and unregulated markets if significant policy differences emerge among markets;
- protectionist measures, including any direct or indirect restrictions on (or increased costs associated with) trading and clearing in, and participant access to, relevant markets and the provision of information services;

- broad trends in business and finance, including the mergers and acquisitions environment and the broad investment strategies (including evolving sustainability mandates) adopted by large financial institutions, investment houses and other fund managers across different asset classes;
- macro-economic changes in global or regional demand or supply shifts for equity, derivatives, fixed income, OTC products, commodities, financial data and other capital market products and services;
- technological changes, including disruption of the Group's customers' business models due to new technologies (such as artificial intelligence);
- external events such as social and civil unrest, acts of terrorism, cyber-crime, any outbreak of hostilities or war, any outbreak of contagious diseases, pandemics or other public health emergencies, natural disasters, power outages, transportation interruptions and climate change;
- concerns over inflation or deflation and the level of institutional or retail investor confidence;
- changes in government, fiscal and monetary policy including actions by global central banks including but not limited to the U.S. Federal Reserve, the Monetary Authority of Singapore, the European Central Bank and Bank of Japan;
- the availability of short-term and long-term funding and capital;
- changes in tax policies (including transaction tax);
- increased exposure to the effects of economic sanctions or other restrictive economic measures;
- the perceived attractiveness, or lack of attractiveness, of the Singapore and/or Asian capital markets;
- unforeseen market closures or other disruptions in trading, clearing and/or price dissemination; and
- real and perceived changes in the supply and demand of commodities underlying the Group's products, particularly metals, freight and agricultural products, including changes as a result of technological improvements or the development of alternative raw material sources.

Recent years have been characterised by increased political and economic uncertainty in some of the core markets in which the Group operates and numerous factors continue to contribute to the considerable uncertainty in the foreseeable future which could adversely affect the Group's operations, including for example the impact of higher interest rates and persistent inflation, the slowdown of global economic activity, the ongoing geopolitical and trade tensions between the United States and China, the continued uncertainty regarding the UK's relationship with the EU following the UK's exit from the European Union, the insufficient deleveraging in the private and public sectors (including the potential and actual default of sovereign debt in certain emerging markets) and a halt in implementing structural and financial reforms.

In particular, the outbreak of a novel strain of coronavirus ("**COVID-19**") in 2020 triggered a global economic downturn and global economic contraction, causing disruptions in demand and supply chains. While the global economy has started trending towards recovering from the COVID-19 pandemic, any future pandemics, epidemics, outbreaks of infectious diseases or any other serious public health concerns, such as a resurgence of COVID-19, together with any measures aimed at mitigating its spread such as travel restrictions, imposition of quarantines or other social distancing measures are likely to have a material adverse effect on the global economy and financial markets. Moreover, the ongoing conflicts in Eastern Europe between Russia and Ukraine and in the Middle East between Hamas and Israel have also disrupted financial markets and have had adverse impact on supply chains and macro-economic conditions. Such disruptions can cause raw material, energy and input shortages or cost increases, and exacerbate prevailing levels of inflation.

Any one or more of the aforementioned factors, which are beyond the Group's control, may reduce capital raising and trading activities on the Exchanges and make the Group's markets less attractive as a source of liquidity. This could in turn, further discourage existing and potential market participants and accelerate a decline in the level of trading activity and related services such as market data or clearing. Poor economic conditions may also negatively impact new listings by reducing the number or size of securities offerings. While the Group has in place crisis management procedures, business continuity plans and disaster recovery capabilities, these may not be as effective at mitigating the effects of prolonged or multiple crisis which are beyond the Group's control. If any of these unfavourable conditions were to persist over a prolonged period of time and trading volumes were to decline substantially for an extended period, the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes may be materially adversely affected.

The Group's industry is highly competitive.

The Group faces significant competition for listing, trading, clearing and settlement of cash equities, real estate investment trusts ("**REITs**"), exchange traded funds ("**ETFs**"), structured products, futures, options and other derivative products. As a result of increased liberalisation and globalisation of the world capital markets, industry consolidation and an increasing number of traditional and non-traditional trading venues, the Group expects such competition to continue.

The Group competes with other market participants in a variety of ways, including the cost, quality and speed of trade execution, market liquidity, functionality, ease of use and performance of trading systems, the range of products and services offered to customers and listed companies, and technological innovation and reputation. Increased competition from existing and new competitors could cause the Group's Exchanges to experience a decline in their global market share of listing, trading, clearing and settlement activity. Such a decline would translate into a decrease in associated transaction fees, clearing and settlement fees, the Group's proportionate share of market data fees, net investment income, depository and custody fees and other related revenue, which could materially adversely affect the Group's financial conditions and results of operations. In addition, increased competition, particularly in a highly regulated environment, may exert a downward pressure on fees in order for the Group to remain competitive, which could negatively affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes. The liberalisation and globalisation of world capital markets have resulted in greater mobility of capital, greater international participation in local markets and more competition among markets in different geographical areas. As a result, global competition among listing venues, trading markets, clearing and settlement systems and other execution venues has intensified. In addition, the industry trend towards consolidation and demutualisation has modified the structure of the exchange sector and contributed to a more competitive environment.

The Group's current and prospective competitors are numerous and include both traditional and non-traditional trading venues. These include regulated markets, electronic communication networks and other alternative trading systems, multilateral trading facilities, market makers, banks, brokers and other financial market participants. Some of these competitors are also among the Group's largest customers. The Group also faces significant and growing competition from financial institutions that have the ability to divert trading volumes from the Group. For example, banks and brokers may assume the role of principal and act as counterparty to orders originating from their customers, thus "internalising" order flow that would otherwise be transacted on one of its Exchanges. Banks and brokers may also enter into bilateral trading arrangements by matching their order flows, depriving its Exchanges of potential trading volumes. The Group expects to face competition from new entrants into its markets, as well as from existing market participants such as banks and liquidity providers who sponsor new initiatives.

Many of the Group's current and prospective competitors have greater financial resources than the Group does, and may not be subject to the same degree of regulatory oversight as the Group. For more information on the regulatory environment in which the Group operates, see "*Regulation*". If the Group fails to compete successfully for a prolonged period of time and trading volumes were to decline substantially for an extended period, the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes may be adversely affected. For more information on the competitive environment in which the Group operates, see "*Description of the Issuer – Competition*".

The Group's industry is characterised by intense price competition.

The pricing model for listing, trading, clearing and settlement has changed in the past few years due to competitive market conditions. In recent years, some of the Group's competitors have engaged in aggressive pricing strategies, including lowering the fees that they charge and increasing the liquidity payments (or rebates) they provide as an incentive for providers of liquidity in certain markets. In addition, the Group's listing fees are subject to competitive pressures. It is likely that the Group will continue to experience pricing pressures, including as a result of continuing consolidations by the Group's competitors and technological advances that may create pressure to reduce the costs of trading, clearing and settlement. Any proposed changes to the Group's fees may be subject to MAS' approval and the Group could lose a substantial percentage of its global market share of trading or listings if it is unable to effectively compete on price. The Group's profit margins could also decline if the Group reduces prices in response to increased competition. If any of these unfavourable conditions were to persist over a prolonged period of time and trading volumes were to decline substantially for an extended period, the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes may be materially adversely affected.

The Group's business may be adversely affected if it is unable to obtain or renew its agreements with third-party index providers.

The Group's equity index derivatives track the performance of global benchmark indices and are generally offered pursuant to various partnerships and agreements (including licence agreements) entered into with the relevant equity index providers. For example, the Group's FTSE Equity Net Total Return ("**NTR**") index futures and FTSE Price Return index futures launched in 2020 are based on the NTR and Price Return indices calculated by FTSE Russell.

While the Group remains committed to developing more derivative products on its own or in collaboration with other partners such as FTSE Russell, its ability to offer the relevant equity index futures contract or derivative is generally contingent on its ability to renew or obtain its agreements with the index providers, on terms that are commercially acceptable to the Group. For example, the Group was able to mitigate the discontinuation of all MSCI equity index futures and options contracts[1] following the expiry of SGX's licence agreement with MSCI[2] in February 2021 by entering into a long-term strategic partnership with FTSE Russell to offer multi-asset index derivatives offering, and has since launched several new equity index futures contracts successfully.

However, there is no assurance that the Group will always be successful in obtaining or renewing agreements with third-party index providers. If the Group is unable to renew or obtain its agreements with the index providers on terms that are commercially acceptable to the Group or at all, the Group may not be able to offer or continue to offer the relevant equity index futures contract or derivative, which may have a material adverse effect on the Group's business, financial condition, results of operations and prospects.

A deterioration in the Group's reputation could adversely affect the Group's business and prospects.

The Group operates in an industry where reputation and customer confidence (including that of issuers, financial intermediaries and investors) are extremely important. One of the Group's competitive strengths is its strong reputation and brand name. Any events or actions that damage the reputation or brand of the

[1] These do not include equity index futures and options contracts under MSCI Singapore.

[2] These do not include licence agreement with MSCI Singapore.

Group could adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

For example, errors in the Group's transaction systems, interruptions in trading, press speculation or other unfavourable information could damage the Group's brand and reputation. The actions of other participants in the exchange market, including issuers, financial intermediaries and competing trading platforms, acting contrary to accepted standards of conduct or market practice could undermine general confidence in the Singapore or Asian markets and negatively affect the Group's business. The Group's members and employees may engage in misconduct, and although it takes precautions to prevent and detect this activity, such precautions may not be effective in all cases. This could result in sanctions or serious harm to the Group's reputation.

The occurrence of any such events could result in market disruption, regulatory investigations and reputational damage to the Group. These may lead to a reduction in number of listings, a loss of trading volumes and market share, a decline in sales of market data and connectivity services and increased regulatory oversight and associated costs. Any loss of confidence in the Group's brand and reputation may also make it more difficult for the Group to attract and/or retain interest of market participants.

Climate change may have a long-term mixed impact on the Group's business, and sustainability disclosure requirements may reduce demand for listings on the Group's exchanges.

The potential impact of climate change on the Group's operations and those of the Group's customers remains uncertain. Risks related to climate change are commonly grouped into physical risk and transition risk.

Physical risks include the impact that climate change could have on the Group's operations, physical assets and those of the Group's customers. Impact of physical risks to the Group include disruption of the Group's operations and impairment of the Group's physical assets. Indirect impact to the Group as a result of climate change and extreme weather events include negative impact on the Group's customers' business and financial conditions, which may affect their abilities to list or trade on the Exchanges. Climate change may cause more frequent and severe weather events, affecting other factors such as temperatures, precipitation, wind and water levels. Extreme weather events may also impact the production of commodities. In the case of energy commodities, production infrastructure may be damaged and distribution supply chains may be interrupted by weather catastrophes. Such events could adversely affect the Group's business, financial condition and results of operations.

Transition risks refer to the risks arising from changing government policies, investor and consumer preferences as society and industries transition to a low-carbon economy. Impact of transition risks to the Group include policy constraints on emissions, imposition of carbon pricing mechanisms and carbon taxes, enhanced reporting obligations, investor preference for green/sustainable products. Indirect impact to the Group via the Group's listed companies and issuers include risks associated with investments in new technologies, costs of transition to lower emissions technologies, stranded assets, diminished access to capital and financing, land use restrictions, and changing consumer/market preferences.

In addition, the increased focus by regulators on sustainability and climate change has resulted in more regulatory requirements, and in particular more corporate reporting obligations. The Group may incur additional compliance and reporting costs. This could also have an impact on the attractiveness of SGX as a securities listing venue and influence the choice of listing venue in a scenario where countries take divergent regulatory approaches. Moreover, the Group may also benefit from the increased trading/hedging activities accompanying more frequent weather catastrophes and transition risks.

The ratings of the Programme may be downgraded or withdrawn and may not reflect all the risks associated with an investment in Notes issued under the Programme (including the Notes).

Moody's has assigned "Aa2" long-term local and foreign currency ratings to the senior unsecured component of the Programme. The Notes are not expected to be rated. The ratings represent the opinions of Moody's and its assessment of the ability of the Issuer to perform its obligations in respect of senior unsecured component of the Programme and credit risks in determining the likelihood that payments will be made when due for such obligations. A credit rating is not a recommendation to buy, sell or hold securities and may be subject to revision, qualification, suspension, reduction or withdrawal at any time by Moody's. There can be no assurance that the ratings will remain in effect for any given period or that the ratings will not be revised by Moody's for the criteria or methodology by which such rating agency determines such ratings be updated, changed or otherwise revised in the future, if, in its judgment, circumstances so warrant. A reduction or withdrawal of the ratings may adversely affect the market price of the Notes and the Issuer's ability to access the debt capital markets. The ratings may not reflect the potential impact of all risks related to structure, market, additional factors discussed above, and other factors that may affect the value of the Notes.

Any downgrading of the Issuer's credit rating by rating agencies may adversely affect the Group's business and liquidity.

The Issuer has obtained credit ratings from Moody's, which assigned to SGX "Aa2" long-term local and foreign currency issuer ratings with a stable outlook. A credit rating is not a recommendation to buy, sell or hold securities and may be subject to revision, qualification, suspension, reduction or withdrawal at any time by Moody's. There can be no assurance that the ratings will remain in effect for any given period or that the ratings will not be revised by the rating agencies for the criteria or methodology by which rating agencies determine such ratings be updated, changed or otherwise revised in the future, if, in their judgment, circumstances so warrant. Any adverse revision to the Issuer's credit rating by rating agencies may adversely affect the Group's business and financial performance as well as the trading price of the Notes, and may limit the Group's ability to gain access to capital and funding markets.

System failures and insufficient systems capacity could materially adversely affect SGX's business.

SGX's business depends on the performance, reliability and upgrades of its complex computer and communications systems, as well as third-party systems and links, and third-party service providers including settlement banks, certain data suppliers, server hardware suppliers, software providers, telecommunications equipment suppliers and telecommunications providers. Any failure on the part of SGX or any third-party service provider to maintain systems or ensure sufficient capacity could result in a disruption to SGX's business and affect trading activity or its regulatory and reporting functions, leading to claims, reputational damage and/or sanctions by regulators. SGX may also need to expend significant capital resources to eliminate or work around defects, errors, failures or delays which could materially adversely affect SGX's business and financial performance.

Although SGX has back-up and risk management systems in place to mitigate the risks of system failures, it is still possible that SGX will experience system failures. System failures could be caused by, among other things, cyber-attacks, periods of insufficient capacity or network bandwidth, power or telecommunications disruptions or failures, acts of God or war, terrorism, human error, natural disasters, fire, sabotage, hardware or software malfunctions or defects, computer viruses, intentional acts of vandalism and similar events over which the Group has little or no control.

SGX is committed to strengthening its systems and infrastructure and has backup systems in place for certain aspects of its operations. SGX's information technology ("**IT**") systems and infrastructures are regularly reviewed to ensure that there are no single points of failure. SGX also regularly conducts business contingency drills to test its recovery plans. However, disaster recovery planning may not be sufficient for all eventualities. There can be no assurance that system failures will not occur and any interruptions, malfunctions, disruptions in trading or service or delays in introducing new products and services could cause the Group to incur reputational damage, regulatory sanctions, litigation, loss of trading share, loss of trading volume and loss of revenues, any of which could materially adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group's electronic trading platform, networks and those of the Group's third-party service providers may be vulnerable to security risks and cyber-attacks.

The Group's electronic trading platforms involve the storage and transmission of its customers' information. A failure of the platform, including a security breach or a cyber-attack, could result in the loss or misappropriation of customer data and, as a consequence, the Group's activities could be disrupted and the Group could face litigation and be required to compensate a portion of damages sustained by the Group's customers. The secure transmission of confidential information over public and other networks is also a crucial element of the Group's operations. The Group's trading network and internet network and those of its third-party service providers may be vulnerable to unauthorised access, cyber-attacks, computer viruses and other security problems.

Although the Group has policies and procedures in place and takes security measures to protect data and IT systems, persons who circumvent security measures could wrongfully access and use the Group's or its customers' information or cause interruptions or malfunctions in the Group's operations. Such breaches could compromise the Group's confidential data, such as clients' trading data and positions, which could lead to lawsuits against the Group and could result in government agencies commencing investigations into the Group's operations, which could result in negative publicity, harm to reputation, and subject the Group to government fines and regulatory sanctions. The market perception of the effectiveness of the Group's security measures could be harmed and could cause members, customers and investors to either reduce or stop their use of the Group's electronic trading platforms, leading to loss of trading share, loss of trading volume and loss of revenues, any of which could materially adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes. The Group may also be required to expend significant resources to protect against the threat of security breaches or to alleviate problems, including reputational harm, caused by any cyber-attacks or security breaches.

Certain trading and clearing infrastructure and software agreements which are critical to SGX's business are licensed from or outsourced to third parties.

SGX's derivatives trading and derivatives clearing systems are obtained from Nasdaq Technology AB ("**Nasdaq AB**"), pursuant to the Delivery and License Agreement, and the Support and Maintenance Agreement, each entered into with Nasdaq AB on 29 December 2014 and extended in June 2021 to November 2027. For securities trading, the system was upgraded in in June 2019 and the contract will be renewed until June 2034. The systems provided by Nasdaq AB form the core of SGX's trading and clearing network and should it fail or become unavailable to SGX, SGX's operations would be subject to severe disruptions. In the absence of an extension of these agreements on favourable terms or at all, SGX may incur significant cost in procuring or developing and implementing a new trading engine. Further, technology obsolescence may lead to these trading engines becoming redundant within a time period far shorter than anticipated. Accordingly, SGX may be required to invest additional amounts and incur significant costs in upgrading or purchasing newer technologies.

The securities post-trade system by LSEG Technology implemented by SGX provides increased flexibility to meet the needs of market participants and SGX's business requirements, including regulatory requirements under the PFMI issued by the International Organisation of Securities Commissions ("**IOSCO**"). Further, SGX's IT infrastructure operations are managed by HCL Singapore Pte Ltd and its data centre facilities are provided by Keppel Data Centres (previously known as Keppel Digihub Ltd) and Singapore Telecommunications Limited.

While SGX closely monitors the service levels and performance of its material IT outsourced service providers and performs annual financial and security controls due diligence for all material outsourced engagements, there can be no absolute assurance that these service providers will be able to provide their services or products without interruption. Any failure by SGX's material outsourced service providers can adversely affect SGX's operating model integrity and reputation and have a material adverse impact on SGX's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group's business may be adversely affected by risks associated with clearing activities.

The Group's Clearing Houses act as central counterparties for contracts entered into by its clearing participants. Each Clearing House assumes the central counterparty risk of each trade cleared through them and takes on the credit exposure to their clearing participants. Clearing participants may encounter economic difficulties for a variety of reasons, which could result in default on settlement obligations. Besides settlement risk, the Group is also subject to liquidity risk when either a clearing member defaults or delays in fulfilling its obligations or when a settlement bank defaults or delays in facilitating the pay-out of funds. The Group is also subject to collateral risk, where it is either unable to access the collateral deposited in a timely manner or faces extreme market conditions that result in a reduction in the liquidation value of the collateral compared to the obligation which the collateral secures. The Group seeks to minimise its exposure to such counterparty credit risks and liquidity risks through various rules and risk management measures. However, in extreme circumstances, clearing participants might suffer difficulties that would impair their capacity to meet their financial performance obligations to the Clearing Houses. If such impairment were to occur, the Group's measures to manage counterparty default risk and its financial resources might not prove sufficient to protect the Group from any material adverse effects of such defaults. The financial condition and results of operations of the Group could therefore be materially adversely affected by losses sustained as a result of participant defaults, and this may have a material adverse impact on the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group's Clearing Houses may be subject to claims and litigation by clearing members, including in relation to default management activities. Under the terms of their agreements with clearing members, the Group's Clearing Houses have extensive powers and obligations in the circumstances of a clearing member's default to close out transactions entered into by the defaulting member and to apply margin and, if necessary, default fund monies, to meet any amounts owed by the defaulting member. These powers and obligations, when they do arise, usually have to be exercised in situations of market volatility and on the basis of preliminary information. In such circumstances, disputes with affected counterparties can arise. The amounts involved in such disputes can be significant. Any such matters could have a material adverse effect on the Group's reputation, business and cash flows, financial condition and results of operations.

There can be no assurance that the Group will be successful in implementing its current and future strategic plans.

The Group has undertaken and expects to continue to undertake initiatives with a view to enhancing retail and institutional investment participation, increasing the amount of trading in securities and derivative products and advancing and updating its technological infrastructure. See "*Description of the Issuer – Business Strategies*".

Factors that may have an effect on the Group's business strategy include, among others:

- the general condition of the Singapore, Asian and global economies;
- the Group's ability to successfully introduce new services and products;
- regulatory restrictions of the jurisdictions that the Group operates in or offers its services to; and
- the Group's ability to identify and attract suitable partners for future growth.

Many of these factors are beyond the Group's control. There can be no assurance that the Group will be successful in implementing its current and future strategic plans and initiatives (such as Project Marketplace, CIX Exchange and CurrencyNode) and any failure to do so may have a material adverse effect on the Group's prospects, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group's existing products may lose market appeal and it may be unable to expand into new product lines or attract new types of investors.

The Group derives its revenue from its four business segments, namely (i) FICC, (ii) Equities – Cash, (iii) Equities – Derivatives and (iv) Platform. Current products in the secondary market may become outdated or lose market favour before adequate enhancements or replacements can be developed. If a significant portion of the Group's existing product portfolio becomes outdated or loses market favour and the Group is unable to offer new products quickly, or if the Group fails to increase investor demand for its products, the Group's business, financial condition, results of operations and prospects, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes could suffer. The Group may also not be able to maintain market share in the newer product segments that it currently offers or defend market share for product segments in which the Group currently has a sizeable or large market share. Consequently, the Group's continued success and future growth rely on the timely development and introduction of new financial products that appeal to the investment community, as well as on the ability to attract new types of investors and protect market share. However, there can be no assurance that the Group would be able to obtain approvals required for the introduction of new products or innovations in a timely manner or at all. Any delays or failure to obtain such approvals may harm the operations and business of the Group, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes. Further, there is no guarantee that the product segments offered will be commercially successful, which may result in a material adverse effect on the Group's results of operations or financial condition, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The number of securities listed on the SGX-ST may decline.

As a result of market cyclicality, investor appetite and prevailing issuance conditions, the Group may experience a decline in the number of certain types of instruments listed on the SGX-ST, such as ordinary equity shares and bond listings. If the number of securities listed on the SGX-ST decreases over time, the Group may be less attractive to market participants as a source of liquidity. This could lead to a loss of listing, trading, clearing and settlement volumes. Similarly, a decrease in the number of securities listed on the SGX-ST may cause issuers to question the competitive profile of the exchange and move their issuances to competitor exchanges, which could adversely affect the Group's listing business. If such declines occur, it may adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group is dependent on the development and implementation of sophisticated technology.

Technology is a key component of the Group's operations and business strategy, and the Group regards it as crucial to its success. However, the Group operates in a business environment that has undergone, and continues to experience, significant and rapid technological change (including in relation to a shift to cloud-based resources, the development of distributed ledger technologies ("**DLT**") and AI). This raises the concerns in the operating environment given the upsurge in external cyber-security incidents due to new emerging cyber threats. To remain competitive and cyber safe, the Group must continue to enhance and improve its responsiveness, technological capabilities, capacity, accessibility, security and functionalities of its trading and clearing platforms. The Group's success will depend, in part, on its ability to:

- develop and/or license leading technologies;
- enhance existing and/or create new trading and clearing platforms;
- respond to customer demands, technological advances and emerging industry standards and practices on a cost effective and timely basis;

- continuously enhance its IT security posture; and
- continue to attract and retain highly skilled technology staff to maintain and develop existing technology and to adapt to and manage emerging technologies.

In addition, change driven by such new technology could negatively impact the performance of the Group's core business and disrupt its commercial models. For instance, developments in Fintech[3] have the potential to disrupt the financial industry and change the way stock exchanges do business. In particular, the Group faces significant risks and competition that Fintech innovation will replace back-end functions that the Group currently offers to customers, particularly in the Group's clearing and settlement functions, through distributed ledger technology and blockchain software which transfers financial assets using cryptographically-secured networks. In this respect, the Group faces competition not only from companies using Fintech but also from other financial market participants such as electronic communication networks and other alternative trading systems, multilateral trading facilities, market makers, banks and brokers using such technologies. In addition, DLT which provide immediate settlement are removing the need for clearing and settlement providers and cloud providers are expanding their capabilities from data storage to a wide range of data management and analytics solutions.

Further, the adoption and implementation of new technologies or market practices, and the addition of new products or services to its trading platforms may require the Group to devote significant additional resources to improve and adapt its services. Keeping pace with ever-increasing requirements can be expensive, and the Group can give no assurance that it will succeed in making these improvements to its technology infrastructure in a timely manner or at all. If the Group is unable to anticipate and respond to the demand for new services, products and technologies on a timely and cost-effective manner and to adapt to technological advancements and changing standards, it may be unable to compete effectively, which could adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes. Moreover, the Group may incur substantial development, sales and marketing expenses and expend significant effort to add new products or services to its trading platforms. Even after incurring these costs, the Group may not realise any, or may realise only small amounts of, revenues for these new products or services. Consequently, if the Group's revenue and turnover does not increase in a timely fashion as a result of these expansion initiatives, the up-front costs associated with expansion may exceed related revenues and reduce the Group's working capital and income and have a material adverse effect on the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group relies on key management personnel, and the Group's business may be adversely affected by any inability to recruit, train, retain and motivate key employees.

The Group believes that its management team contributes significant experience and expertise to the management and growth of the Group's business. The continued success of the Group's business and the Group's ability to execute its business strategies in the future will depend in large part on the efforts of the Group's key personnel. The loss of any key management personnel, and with them any such experience, knowledge, business relationships and expertise, for any reason, without suitable and timely replacements, or the failure to attract, train and retain qualified and experienced management personnel may lead to the loss or deterioration of important business relations as well as the management's ability to implement plans and maintain operational effectiveness. This may in turn have an adverse impact on the Group's operations, thereby adversely affecting the Group's financial position and profitability, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

[3] "**Fintech**" refers to the emerging technology used to support and enable banking and financial services, covering not only the back and middle offices but front offices as well.

Any future acquisition or business combination may be unsuccessful and/or could present unforeseen integration difficulties.

In order to stay competitive, the Group has and may seek to enter into further acquisitions, investments, alliances, joint ventures or other business combinations. There can be no assurance that the Group will be able to adequately assess and identify suitable acquisition opportunities for business diversification or other purposes, obtain the financing necessary to complete and support such investments, alliances or joint ventures on satisfactory terms, or that any such business combination will prove to be profitable or create value for the Group. Further, there can be no assurance that any acquisition, investment, alliance, joint venture or other business combination offer made by the Group will be accepted or that it will be approved by the relevant regulatory authorities. In addition, potential acquisitions, investments, alliances and joint ventures may result in the Group's exposure to unanticipated liabilities and the Group can provide no assurance that its acquisition procedures would identify any actual or potential liabilities. Any failure to complete, may result in a material adverse effect on the Group's results of operations or financial condition, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

In addition, even if such acquisitions, investments, alliances, joint ventures and other business combinations were completed, the Group may encounter difficulties in integrating the acquired entities and businesses, achieving the expected synergies and/or aligning the interests of its various businesses and subsidiaries. Such difficulties could result in the acquisitions, investments or business combinations falling short of the Group's expectations, which may have a material adverse effect on the Group's results of operations or financial condition, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

Market data disseminated by the Group may contain miscalculations or undetected errors.

Market data distributed by the Group covers a variety of asset classes traded on the exchange, as well as information covering various third-party indices. The compilation and/or dissemination of such market data or third-party index information could give rise to miscalculations or undetected errors. Market participants who use real-time price and order book information or other market-moving signals to make their buy or sell decisions and recommendations, or require accurate instrument reference data for risk management activities and error-free settlement, may base their decisions on miscalculated or erroneous information. Therefore, the Group may be exposed to claims brought against it based on such miscalculations or undetected errors which could result in harm to the Group's reputation, contractual disputes, negative publicity, delays in or loss of market acceptance of the Group's products or unexpected expenses and diversion of resources to remedy errors. This may have a material adverse effect on the Group's business and cash flows, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group may experience fluctuations in trading activities and the largely fixed nature of its expenses makes it difficult to adjust expenses quickly to fluctuating revenue and profitability.

The Group's revenue and profitability are largely dependent on trading and clearing of derivatives and equities. Thus, the level of trading activity, price levels and other external factors will drive the Group's total revenue and profitability, which may fluctuate from one period to another. Further, a large proportion of the Group's expenses, such as fixed staff costs and technology and premise expenses, are fixed in the short term. If total revenue falls below expectations or cannot be increased to match expenses, the Group may not be able to adjust operating expenses quickly enough to compensate for the reduction in profit, and the business, financial condition and results of operations of the Group for a given period, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes may be materially adversely affected.

The Group may not be able to protect its intellectual property rights which could adversely affect its business.

The Group owns or licenses rights to a number of trademarks, service marks, trade names, copyrights and patents that the Group uses in its business, including rights to use certain indices as the basis for equity index derivatives products traded on its futures market. To protect its intellectual property rights, the Group relies on a combination of trademark laws, copyright laws, patent laws, trade secret protection, confidentiality agreements and other contractual arrangements with its vendors, affiliates, customers, strategic investors and others. The protective steps taken may be inadequate to deter misappropriation of the Group's intellectual property. The Group may be unable to detect the unauthorised use of, or take appropriate steps to enforce, the Group's intellectual property rights. Failure to protect its intellectual property adequately could harm the Group's reputation and affect its ability to compete effectively. Further, defending the Group's intellectual property rights may require significant financial and managerial resources, the expenditure of which may adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

Third parties may assert intellectual property rights claims against the Group, which may be costly to defend, could require the payment of damages and could limit its ability to use certain technologies, trademarks or other intellectual property. The Group may face allegations that it has infringed or otherwise violated intellectual property rights of third parties. Any intellectual property claims, with or without merit, could be expensive to litigate or settle and could divert management resources and attention. Successful challenges against the Group could require the Group to modify or discontinue its use of technology or business processes where such use is found to infringe or violate the rights of others or require the Group to purchase licences from third parties, any of which could adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group is exposed to foreign exchange risk.

The Group's revenue from the clearing of derivative products is mainly in USD and interest receivables from placements of margin deposits with banks are mainly denominated in USD. As part of its foreign currency cashflow management, the Group adopts a tiered foreign exchange ("**FX**") hedging strategy for its non-SGD revenue to mitigate the risk of such foreign exchange rate fluctuations. However, the Group's hedging policy and strategy may not cover all of its exposure to foreign exchange rate fluctuations.

The Group is also exposed to currency risk on the net assets in foreign operations mainly in GBP, EUR and USD. For the Group's net assets in foreign operations denominated in GBP, management monitors the Group's currency exposure by tracking the GBP currency movement on a regular basis and the Group currently does not hedge the currency risk of the net assets in foreign operations denominated in GBP. The Group's net investment in the foreign operations denominated in EUR is held by a wholly-owned subsidiary that has EUR functional currency and currency exposure arising from this investment is currently hedged by EUR-denominated convertible bonds issued by the subsidiary. This provides an economic hedge without derivatives being entered. Part of the currency exposure to the net assets in foreign operations denominated in USD is currently hedged through borrowings denominated in USD using net investment hedge.

Further, when seeking to optimise the returns on its funds available for investment, the Group may invest in non-SGD securities from time to time. As a result, the Group's operations and/or financial condition may be affected by foreign exchange rate fluctuations.

The Group is exposed to fluctuations in interest rates.

The Group is exposed to interest rate fluctuations, in particular in connection with deposits of cash and cash equivalents and bond investments. The Group's fixed deposit placements are mainly short-term in nature and placed with banks that offer the most competitive interest rates. The Group manages its interest rate risks arising from investments in bonds by placing such balances on varying maturities and interest rate terms. The Group's borrowings are fixed rate instruments held at amortised cost. There can be no assurance that the Group will be successful in managing and mitigating the impact of interest rate fluctuations, which could have an adverse effect on the Group's business, financial condition and operating results.

The Group is at risk from terrorism.

Given the Group's position in the global securities industry and the location of its properties and personnel in, among others, Singapore's central business district, the Group is susceptible to being a direct target of, or an indirect casualty of, attacks by terrorists or terrorist organisations, or other extremist organisations that employ threatening or harassing means to achieve their social or political objectives.

It is impossible to predict the likelihood or impact of any terrorist attack on the securities and derivatives industry generally or on the Group's business. In the event of an attack or a threat of an attack, the Group's security measures and contingency plans may be inadequate to prevent significant disruptions to its business, technology or access to the infrastructure necessary to maintain its business. In addition, terrorist attacks may cause instability or decreased trading in the securities and/or derivatives markets, including trading on the Exchanges. Any of these events could adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

Risks Relating to Regulation

The Group operates in a highly regulated industry and may be subject to censures, fines and other legal proceedings if it fails to comply with its legal and regulatory obligations.

The Group operates in a highly regulated industry and is subject to extensive regulation. MAS regulates SGX and its subsidiaries in their various capacities as (i) an approved holding company, (ii) an approved exchange, (iii) a recognised market operator, (iv) an approved clearing house, and (v) a central depository system and has broad powers to withhold approvals or consents with respect to proposals made by the Group and any of its Exchanges and Clearing Houses (whether with respect to rule amendments, product range or infrastructure or market development initiatives), to issue directives (including conditions and restrictions) and to require the Group to produce records and supply information. Where MAS is satisfied that it is appropriate to do so in the public's interest, or for the proper regulation of each and any market and clearing facility operated by the Group, MAS may impose sanctions, conditions and/or restrictions on the Group and/or its officers. MAS also has the power to revoke its approval or recognition for the conduct of the Group's regulated activities, such as the operation of an approved exchange. In the unlikely event that MAS exercises such powers, this would have a material adverse effect on the Group's business, reputation, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

Energy Market Company Pte Ltd ("**EMC**"), the Group's wholly-owned subsidiary, is regulated by the Energy Market Authority of Singapore ("**EMA**") under the Electricity Act 2001 of Singapore (the "**Electricity Act**") as the licensed operator of Singapore's wholesale electricity market called the National Electricity Market of Singapore ("**NEMS**"). The Singapore Electricity Market Rules (the "**Market Rules**") made under the authority and purposes of the Electricity Act govern the wholesale operations of NEMS. The EMA has the power under the Electricity Act and the Market Rules to revoke the aforesaid licence and/or impose financial penalties on EMC in the event of a breach of the Electricity Act, the Market Rules or the terms of its licence.

In addition, the Group's operating subsidiaries are presently regulated in several jurisdictions in respect of the Group's overseas activities. These include, but are not limited to, (i) recognition in Hong Kong as automated trading services providers, (ii) registration in the U.S. as a foreign board of trade, (iii) recognition in Europe as third country central counterparties and a benchmark administrator, (iv) recognition in the UK as recognised overseas investment exchanges and a benchmark administrator and (v) recognition in Switzerland as foreign trading venues and a foreign central counterparty. Each of the regulators in these jurisdictions may have the power to revoke its approval for the conduct of the Group's business in respect of market participants based in a relevant jurisdiction, which may adversely affect the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

As the scope of the Group's business expands, it may also become subject to increased overseas regulation or oversight by other regulators, whether due to the extraterritorial effect of existing or proposed overseas regulations or the expansion of the Group's activities in other countries, including, without limitation, the United States Commodity Exchange Act, the Hong Kong Securities and Futures Ordinance, the European Union Markets in Financial Instrument Directive, the European Market Infrastructure Regulation, and the European Union Benchmarks Regulation. In addition, there has been, and may continue to be, an increased demand for more regulation and stricter oversight in the areas in which the Group already operates. This includes compliance with international standards in respect of the Group's business lines, which may be incorporated into regulations applicable to the Group. This includes, but is not limited to, the PFMI issued by the IOSCO.

The potential application of overseas regulation and oversight by other regulators and the increased demand for more or stricter regulation as mentioned above may impose or result in increased or excessive regulatory burdens on and compliance costs for the Group. As a consequence, the Group may be exposed to a higher risk of reputational damage or financial loss due to higher exposure to regulatory requirements and sanctions, penalties or fines resulting from failure to comply with any new, newly applied or existing laws or regulations. The Group may also expect increased operational costs or sustain losses or financial consequences if any additional recognition by overseas regulators is required, if its contracts must be renegotiated, or if contract terms must be altered as a result of new or newly applied laws, regulations, or court decisions whether due to the extraterritorial effect of overseas regulations or otherwise. The Group's ability to comply with applicable laws and rules will largely depend on its establishment and maintenance of appropriate systems and procedures and adequate human resources, as well as its ability to attract and retain qualified personnel and professionals.

In the case of actual or alleged non-compliance with regulatory requirements, the Group could be subject to investigations and administrative or judicial proceedings that may result in substantial penalties. Any such investigation or proceeding, whether successful or unsuccessful, could result in substantial costs and diversions of resources, which could negatively affect the Group's reputation and have a material adverse effect on the Group's business and cash flows, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

Any delay in obtaining or failure to obtain regulatory approval for new rules or products or amendments to existing rules, products or fees could have an adverse effect on the Group.

The Group operates securities and futures markets and clearing houses in Singapore and has power to make or amend rules for the purposes of discharging its duties, but no rule or amendment of its rules will have effect unless it complies with such requirements as MAS may prescribe. In addition, no fee imposed by the clearing house and depository in respect of their clearing and depository businesses will have effect unless the fee is approved by MAS. Any delay or refusal in approving the new rules, changes to the rules or the altering of any proposed change, could have an adverse effect on the Group's business, financial condition and results of operations, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes. The results of operations of the Group may also be adversely affected by regulatory constraints on its fee setting ability.

Further, the Group requires a number of regulatory approvals, licenses, registrations and permissions to operate its business. In particular, the SFA provides that the Exchanges shall not, without the approval of MAS, list, de-list or permit the trading of, among others, any futures contract or any such other instrument or contract on any market operated by the Group. There can be no assurance that the Group has, or may receive, all necessary approvals, within the time frames anticipated or at all. Failure to obtain, renew or maintain any required approvals, permits or licences or to meet any regulatory requirements may result in the interruption of all or some of the Group's operations, constrain its ability to scale-up its businesses or to introduce new products and services and could materially and adversely affect the Group's business and financial results, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes. See "*Regulation*" for further details. In addition, the Group's business operations rely heavily on various intermediaries, and any change in regulations governing the intermediaries may have a material and adverse impact on the Group.

The loss of statutory immunity could have a material adverse effect on the Group.

The SFA provides that no criminal or civil liability will be incurred by the Exchanges or the Clearing Houses or any person acting on their behalf or any member of any of their committees in respect of anything done (including any statement made) or omitted to be done with reasonable care and in good faith in the course of, or in connection with, the discharge or purported discharge of their respective duties under the SFA or, where appropriate, the business rules or listing rules of the Exchanges or Clearing Houses. In addition, the SFA provides that The Central Depository (Pte) Limited ("**CDP**"), if acting in good faith and without negligence, shall not be liable for conversion or for any breach of trust or duty where the CDP has, in respect of book entries in accounts maintained by it, made entries regarding the book-entry securities, or transferred or delivered the book-entry securities, according to the instructions of a depositor notwithstanding that the depositor had no right to dispose of or take any other action in respect of the book-entry securities.

In the event that the Exchanges, Clearing Houses or CDP are found to have acted other than in reasonable care and/or good faith, or if the statutory immunity is removed or modified or deemed to be not applicable for other reasons, they may lose their statutory immunity under the SFA which could have a material adverse effect on the Group's business, financial condition and results of operation, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes. See "*Regulation*".

The Group has self-regulatory obligations and also operates for-profit businesses, and these two roles may create conflicts of interest.

The Group has regulatory responsibilities to regulate market participants, including listed companies and trading and clearing members. There may be concerns over potential conflicts of interest of a "for-profit" business operator concurrently performing a regulatory function, among other things. Any failure or perceived failure by the Group to diligently and fairly regulate its markets or to otherwise fulfil its regulatory obligations or the expectations of MAS, the investing public or market participants could significantly harm its reputation and adversely affect the Group's business, the Issuer's ability to fulfil its obligations to Noteholders or the price or value of the Notes.

The Group has a Regulatory Conflicts governance framework in place to manage any potential, perceived or actual Regulatory Conflicts and ensure that regulatory decision-making is not compromised by the Group's commercial or financial objectives. In addition to its regulatory functions, SGX RegCo formulates and maintains the arrangements and processes within the Group for managing potential, perceived or actual Regulatory Conflicts. For further details, see "*Regulation – SGX as a Market Regulator – Key Regulatory Principles – Guiding principle six*: *SGX as a frontline regulator and managing regulatory conflict*".".

The paragraph titled "Singapore Taxation." on page 57 of the Original Offering Circular shall be deleted in its entirety and replaced by the following:

"Singapore Taxation.

The Notes to be issued from time to time under the Programme, during the period from the date of the Offering Circular to 31 December 2028 are, pursuant to the Income Tax Act 1947 of Singapore (the "Income Tax Act") and the MAS Circular FDD Cir 08/2023 entitled "*Qualifying Debt Securities and Primary Dealer Schemes – Extension and Refinements*" issued by the MAS on 31 May 2023, intended to be "qualifying debt securities" for the purposes of the Income Tax Act, subject to the fulfilment of certain conditions more particularly described in the section "*Taxation – Singapore Taxation*". However, there is no assurance that the Notes will continue to enjoy the tax concessions in connection therewith should the relevant tax laws or MAS circulars be amended or revoked at any time."

CAPITALISATION AND INDEBTEDNESS

The section titled "Capitalisation and Indebtedness" on page 174 of the Original Offering Circular shall be deleted in its entirety and replaced by the following:

"The table below sets out the capitalisation and indebtedness of the Group as at 31 December 2023 and as adjusted to give effect to the issue of the Notes but before the application of the proceeds therefrom. The information set out in this table has been extracted from and should be read in conjunction with the Group's Reviewed Interim Financial Statements and the related notes thereto which are incorporated by reference in this Supplemental Offering Circular. The as adjusted information below is illustrative only and does not take into account any changes in the capitalisation and indebtedness of the Group after 31 December 2023, other than to give effect to the issue of the Notes.

	As at 31 December 2023	
	(S$'000)	
	Unaudited	
	Actual	**As Adjusted**
Cash and cash equivalents	939,575	939,575
Borrowings		
Current	349,953	349,953
Non-current	330,711	330,711
Notes to be issued	—	[●]
Total borrowings	680,664	[●]
Equity		
Capital and reserves attributable to the Company's equity holders		
Share capital	420,476	420,476
Capital reserve	3,989	3,989
Treasury shares	(12,796)	(12,796)
Cash flow hedge reserve	858	858
Currency translation reserve	(19,359)	(19,359)
Fair value reserve	79,523	79,523
Securities clearing fund reserve	25,000	25,000
Derivatives clearing fund reserve	34,021	34,021
Share-based payment reserve	23,855	23,855
Other reserve	(40,506)	(40,506)
Retained profits	1,189,059	1,189,059
Non-controlling interests	1,664	1,664
Total equity	1,705,784	1,705,784
Total capitalisation[1]	2,386,448	[●]

Note:

(1) Total capitalisation equals total borrowings plus total equity.

There has been no significant change to the total capitalisation and indebtedness of the Group since 31 December 2023.”.

DESCRIPTION OF THE ISSUER

The section titled "Description of the Issuer" on pages 177 to 208 of the Original Offering Circular shall be deleted in its entirety and replaced by the following:

"OVERVIEW

SGX seeks to serve as a trusted and efficient international marketplace, operating equity, fixed income, currency and commodity markets in accordance with international regulatory standards. As one ecosystem with global relevance and influence, it offers multiple growth avenues to stakeholders through listing, trading, clearing, settlement, depository, data and index services.

SGX is committed to leading on climate action by developing a world-class transition financing and trading hub through SGX FIRST (Future in Reshaping Sustainability Together), its multi-asset sustainability platform. Headquartered in AAA-rated Singapore, SGX is globally recognised for its risk-management and clearing capabilities.

SGX is listed on the Mainboard of the SGX-ST with a market capitalisation of approximately S$10.1 billion as at 1 February 2024. Since its listing on 23 November 2000, SGX has grown to become a diversified exchange group with a global distribution network. As at 31 December 2023, SGX is represented in global financial centres with offices in 19 cities[4] including, Beijing, Chicago, Hong Kong, London, Mumbai, Gujarat, New York, Singapore, Shanghai and Tokyo.

On 5 August 2021, SGX obtained first-time credit ratings from Moody's Investors Service ("**Moody's**"). Moody's has assigned SGX "Aa2" long-term local and foreign currency issuer ratings with a stable outlook, and such rating was further affirmed by Moody's on 22 November 2023. As at 22 November 2023, the Aa2 rating is the highest credit rating assigned to any exchange group by Moody's.

With the aim of capitalising on the Group's strength as an international multi-asset exchange to pursue growth opportunities and build scale in multiple asset classes, the Group implemented changes to its operating segments in 2023 (the "**Reorganisation**"). With effect from 1 October 2023, the four operating segments are: FICC, Equities – Cash, Equities – Derivatives as well as Platform. These segments are supported by the client-facing unit, Global Sales and Origination ("**GSO**").

MAS domestically regulates SGX and the Group believes that it has also earned the trust of customers through its high regulatory and risk management standards which are aligned with global standards. SGX was one of the first exchanges in Asia to attain the status of a Foreign Board of Trade from the U.S. Commodity Futures Trading Commission in January 2015. SGX was also recognised by the European Securities and Markets Authority as a third-country central counterparty in April 2015. These recognitions enable U.S. and European customers to more effectively gain access to SGX's products and services.

As at 31 December 2023, institutions[5] held approximately 50% of SGX's total shares outstanding, with 27% held by retail shareholders. SGX's institutional shareholders are geographically diversified with 24% originating from Asia, 42% from North America, 32% from the UK and Europe and the remaining 2% from other continents.

SGX has been able to remain resilient through economic and market cycles through its diversified business model. SGX has been able to generate operating profit margins of above 48% and return on equity of above 30% in the last three financial years.

For the financial years ended 30 June 2021 ("**FY2021**"), 2022 ("**FY2022**") and 2023 ("**FY2023**"), the Group's operating revenue was S$1,056.0 million, S$1,099.0 million and S$1,194.4 million, respectively, and net profit after tax was S$445.8 million, S$451.9 million and S$570.6 million, respectively.

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[4] Including subsidiaries

[5] Excluding SEL Holdings, which holds approximately 23% of SGX's total shares outstanding.

For the half year ended 31 December 2022 ("**1H FY2023**") and 2023 ("**1H FY2024**"), the Group's operating revenue was S$571.4 million and S$592.2 million, respectively, and net profit after tax was S$284.6 million and S$281.4 million, respectively.

HISTORY

SGX was formed on 1 December 1999 pursuant to The Exchanges (Demutualisation and Merger) Act 1999, Act No. 27 of 1999 (the "**Merger Act**") in order to effect the demutualisation and merger (the "**Merger**") of the two former exchanges, namely the Stock Exchange of Singapore ("**SES**") and the Singapore International Monetary Exchange ("**SIMEX**"). Prior to the Merger, SES and SIMEX were independent exchanges. Each was owned by its members, which were companies carrying on brokerage businesses in transactions on such exchanges. A third entity referred to in the Merger Act, the Securities Clearing & Computer Services (Pte) Limited ("**SCCS**"), was owned by the respective shareholders of SES and by SES.

In 1998, the government of Singapore commenced a process to demutualise and merge SES and SIMEX in order to enhance their competitive position and to respond to global trends. In particular, demutualisation and merger was seen as the best path to enable the exchanges to serve the broader interests of the financial sector and the needs of their customers and end-users, to minimise operating costs, to enter new business lines and to enhance their competitive positioning *vis-à-vis* other exchanges and electronic communication networks.

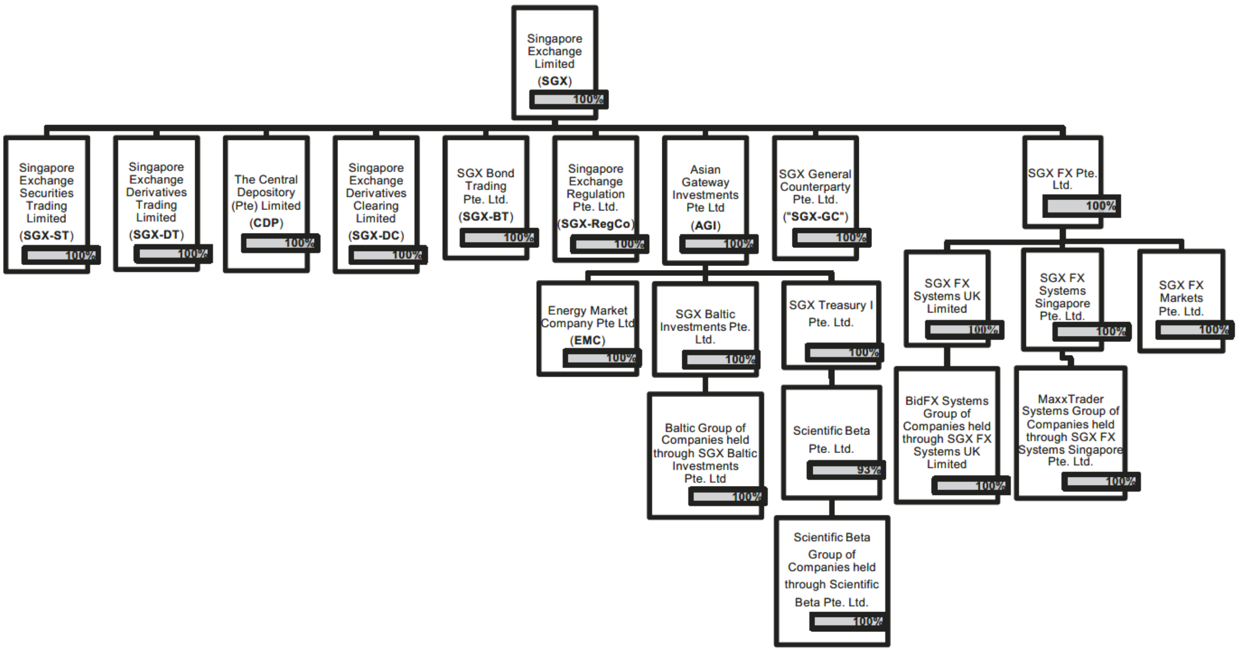
Pursuant to the Merger Act, the demutualisation and merger was effected on 1 December 1999. The share capital of each of SES, SIMEX and SCCS was cancelled and replaced by new shares in SES, SIMEX and SCCS, which were then held by SGX. This had the result of substituting SGX for the former shareholders of SES, SIMEX and SCCS. On the same date, SGX allotted and issued to each former shareholder of SES and SIMEX and SCCS shares in SGX.

CORPORATE STRUCTURE

As at 31 December 2023, the Group consisted of 45 companies, of which 28 are incorporated in Singapore, five in the United Kingdom, four in the United States, two in Australia, one in China, two in India, two in Europe and one in Japan with branches or representative offices in the United Kingdom, Hong Kong, China, Japan and India. As at 31 December 2023, SGX is represented in global financial centres with offices in 19 cities[6] including, Beijing, Chicago, Hong Kong, London, Mumbai, New York, Singapore, Shanghai and Tokyo.

The following chart sets forth the simplified corporate structure of the Group as at 19 February 2024:

[6] Including subsidiaries



COMPETITIVE STRENGTHS

The Group's competitive strengths are its (i) diversified business model, (ii) position as an international capital raising centre, (iii) customer focus and active partnership with market participants, (iv) strong brand recognition with a track record of product innovation, (v) financial strength, (vi) best in class technology infrastructure, (vii) robust regulatory and risk management framework, (viii) experienced board and management team and (ix) focus on sustainability.

Diversified business model

The Group is an international, diversified and multi-asset exchange that operates key financial market infrastructure, and offers its customers investment opportunities in cash equities, fixed income and a broad suite of derivatives asset-classes in equities, foreign exchange ("**FX**") and commodities. It also offers services such as market data, connectivity, index calculation and index solutions.

The diversification in the Group's asset classes and services offering is essential in meeting the needs of the Group's broad base of customers, which include retail investors, sell-side participants, inter-dealer brokers, corporates, financial institutions, proprietary trading groups and asset managers.

The diversity of products is another key factor to the Group's competitive strengths. Its offering of liquid Asian country-specific derivatives, including Singapore, China, India, Japan and Taiwan, allows investors to not only risk-manage their Asian portfolios at a single venue, but also benefit from capital efficiency through margin offsets on SGX. Approximately 92% of total derivatives volumes on SGX in FY2023 were in non-Singaporean products, primarily equity index futures of the Asian country-specific derivatives products mentioned earlier.

International capital raising centre

SGX is one of the most international stock exchanges globally. As at 31 December 2023, more than 80% of the bonds and 35% of the companies listed on the SGX-ST were of non-Singapore origin. The Group believes that businesses find Singapore an attractive jurisdiction in which to raise capital due to its AAA-rating, its status as a leading wealth management centre globally, stable political environment and established infrastructure. In particular, SGX has attracted customers from key sectors, such as consumer, technology, healthcare, maritime & offshore services, mineral, oil & gas and real estate.

The Group is the largest exchange in Asia Pacific for the listing of international debt securities, with over 9,700 debt securities listed as at 30 June 2023 by more than 1,900 issuers from over 56 countries and territories in 26 currencies.

Customer focus and active partnership with market participants

Maintaining a market that is competitive regionally and globally is critical to the Group. To remain ahead of its competitors, it continually seeks to improve its product offerings, risk management processes, regulatory policies and operations in order to align with the needs of the investment community. Since the early days of developing Asia, the Group has constantly evolved with industry trends to adapt to international investors' demands for Asian investment opportunities. These include the electronification of global markets, growth of passive investing, Asia's position in leading global growth, climate-related challenges and operating in a post-COVID-19 world. The Group proactively engages its members and international market participants through its global connectivity and network of satellite offices in key financial cities such as Beijing, Chicago, Gujarat, Hong Kong, London, Mumbai, New York, Shanghai and Tokyo. Domestically, SGX also engages with industry bodies such as the Securities Investors Association of Singapore and the Securities Association of Singapore. The Group believes that continuous engagement with market participants is important in improving transparency, understanding the needs of investors, and instilling confidence in the market to ensure that it remains relevant and attractive.

As part of its efforts to expand its network of global partnerships to strengthen investors' participation in the derivatives marketplace across major exchanges globally, SGX invested approximately U.S.$200 million as a limited partner in a private equity fund managed by 7RIDGE, a specialised growth equity firm invested in transformative technology in 2021. In December 2021, the fund completed the acquisition of Trading Technologies International, Inc., a global provider of high-performance professional trading software, infrastructure and data solutions for listed futures and options.

SGX had 81 Trading and Clearing Members (Agency) and 112 Proprietary Trading Members as at 31 December 2023.

Strong brand recognition with a track record of product innovation

SGX has established its brand as Asia's leading and trusted market infrastructure through its track record in innovation and ability to facilitate the exchange of capital and ideas to create value for individuals, corporates and economies.

SGX was formed through the merger of the SES and the SIMEX in December 1999. Its history as one of Asia's leading exchanges span more than 30 years, when the SES was the first stock exchange in Asia and one of the first globally to establish a fully electronic trading and scrip-less system. SIMEX was the first financial futures exchange in Asia and pioneered the Mutual Offset System that enabled 24-hour trading sessions between two continents – Asia and North America.

SGX's success in establishing a strong brand can be attributed to its innovation in developing investment and risk-management products that cater to the needs of investors around the world. It is a trusted international marketplace for cash equities, debt instruments and securitised products such as exchange-traded funds ("**ETFs**"), daily leverage certificates and warrants. It also offers a wide range of derivative products, including futures and options on Asia's benchmark equity indices, currencies and commodities.

SGX has won multiple international awards recognising its leadership among exchanges across different asset classes and products. In 2023, it was named "Asia-Pacific Derivatives Exchange of the Year" at the GlobalCapital Derivatives Awards for the ninth time in 10 years. At the FX Markets Asia Awards in the same year, it was named "Best FX Exchange" for the sixth consecutive year and "Best FX Clearing House" for the fourth time. SGX also won "Best FX Exchange APAC" at the Euromoney Foreign Exchange Awards for the first time in 2023. It won the "Excellence in Regulation" and "Excellence in Sustainability" accolades at the Markets Media Group's Women in Finance Asia Awards in 2023. SGX won "Excellence in Employee Volunteerism (Silver)" at the Human Resources Online HR Excellence Awards and was named among "Singapore's Best Employers" by The Straits Times in 2023.

In 2022, SGX was named "Derivatives Exchange of the Year" at the Asia Risk Awards for the eighth time in nine years. SGX also won "Global Exchange of the Year" at the FOW International Awards and "Exchange of the Year" at the FOW Asia Capital Market Awards in the same year, where its then-chairman was given the "Lifetime Achievement Award". Also in 2022, SGX was named "Commodities Exchange of the Year" at the Energy Risk Asia Awards and "Metals Service Provider of the Year: Financial" at the Platts Global Metals Awards. At the Regulation Asia Awards for Excellence in 2022, SGX won "Exchange of the Year" and its ESGenome Disclosure Portal ("**ESGenome**") was named "ESG Initiative of the Year".

In 2021, SGX won "Best Digital Collaboration" at The Asset Triple A Digital Awards together with HSBC and Temasek. SGX was also named "Commodity Exchange of the Year" at the Energy Risk Awards 2021 for the fourth time, in recognition of its leadership in energy risk management across the global commodity supply chain and service to producers, physical and financial traders, as well as consumers.

SGX will continue to build on its global brand and reputation as a leading and trusted market infrastructure. This remains a critical factor for the investment community to continue to participate in the products offered and to attract companies to raise capital on its platform.

Financial strength

The Group seeks to maintain sufficient financial resources and capabilities to support the growth of its business, return value to shareholders and ensure financial flexibility while maintaining strong creditworthiness and liquidity.

The Group's financial strength has remained strong since its listing in 2000 and its key highlights include the following:

- sustained resilient financial performance through different market cycles because of its diversified business model, earning net profits of S$445.8 million, S$451.9 million and S$570.6 million for FY2021, FY2022 and FY2023, respectively, and S$284.6 million and S$281.4 million for 1H FY2023 and 1H FY2024, respectively;
- strong cash flows generated from its business;
- low gross debt and healthy interest coverage ratio;
- balance sheet remains strong, which gives the Group the capacity to invest and grow; and
- aims to pay a sustainable and growing dividend over time, consistent with the Group's long-term growth prospects. Dividends will be paid on a quarterly basis and will be decided by the Board. SGX paid total dividends of 32.0 cents per share, 32.0 cents per share and 32.5 cents per share for FY2021, FY2022 and FY2023, respectively, and 16.0 cents per share and 17.0 cents per share for 1H FY2023 and 1H FY2024, respectively.

The Group expects that its ability to generate a high level of cash from its operations, combined with its diversified sources of revenue, will provide sufficient financial resources for the Group to fund its future organic growth.

Best-in-class technology infrastructure

Sustaining resilience in a complex business environment continues to be an evergreen priority of SGX. In respect of FY2023, there were no disruptions to SGX's platforms and services. SGX continues to deliver tailored solutions aligned to business priorities while engineering innovations to future-proof its business models.

With respect to modernisation and adoption of best-in-class technology platforms, SGX delivers strategic business platforms that are stable and secure by design through a hybrid platform sourcing approach to accelerate electronification and optimise value capture:

- Matured asset classes – Buy vendor platforms for commoditised services and build proprietary capabilities for differentiation.
- Newer asset classes – Accelerate electronification through inorganic additions of clients and capabilities through partnership, acquisition or investing around state-of-the-art platforms.

With respect to emerging technologies, the platform strategy is use-case and customer adoption driven. SGX has remained on the leading edge by achieving its first-ever technology patent on blockchain inter-ledger operability, which validates its capability to convert a product idea into IP.

Keeping an eye on technology trends, SGX has moved out of legacy technologies and continues to invest in resilience, growth and digital enablement to stay relevant in this fast-evolving application programming interface ("**API**") and digital economy.

SGX has progressively leveraged the strategic advantages of cloud computing, such as agility and scalability, since 2018. SGX's cloud strategy is focused on the use of a hybrid model, spreading its technology footprint between an on-premise data centre, private cloud and public cloud of leading cloud providers. SGX aims to continue making significant strides in transitioning its platforms to public cloud as it builds, buys and acquires new platforms.

SGX has also invested significantly in robust cyber security measures to safeguard its systems and data from threats, such as enhancing monitoring capabilities through the use of artificial intelligence ("**AI**") driven user behaviour analytics, file integrity monitoring and improved threat vulnerability management.

SGX continues to equip its staff with relevant and future-ready skills through professional certification, gamification and training programmes in areas such as Cloud, AI/Machine Learning, Containerisation, Cybersecurity and Distributed Ledger Technology. In addition, hiring and retaining talents with both evergreen and emerging skills enables SGX to navigate and drive execution.

Robust regulatory and risk management framework

As a systemically important financial institution and a key operator of the SGX-ST, the SGX-DT, the CDP and the SGX-DC in Singapore, the Group is subject to high levels of regulatory oversight by MAS. the Group is committed to working with local and international regulators, exchanges and market participants to develop and enforce rules and regulations with a view to building a fair, orderly and transparent marketplace.

As a self-regulatory organisation, SGX is also committed to strong and effective regulation and believes that regulatory integrity benefits investors, strengthens its brand and attracts companies seeking to list securities on its markets. In 2017, SGX RegCo was incorporated as an independently governed subsidiary to undertake all regulatory functions on behalf of SGX and its regulated subsidiaries. The formation of SGX RegCo segregated SGX's regulatory functions from its commercial and operating activities, thereby substantively addressing any actual or perceived conflicts in SGX RegCo's regulatory decision-making. The Chairman and the majority of the SGX RegCo Board are fully independent from SGX. The SGX RegCo Board oversees SGX RegCo's performance of its regulatory duties independently of the business functions of SGX and its regulated subsidiaries. In addition, the Group has a robust governance framework for escalating, managing and resolving any actual or perceived regulatory conflicts. MAS has supervisory oversight of all regulatory responsibilities performed by SGX RegCo.

SGX RegCo has also made its surveillance and regulation of the securities market more targeted and effective with the adoption and application of AI enhancements to its real-time monitoring system. AI has helped to better manage alerts in high volatility periods. AI also reduces the risk of false positives in surveillance reports and thus increases the value of trading queries and quality of alerts issued by SGX RegCo. SGX's listing requirements are continuously refreshed to remain relevant to evolving market needs and changes in the business landscape and global environment. For example, in 2023, SGX RegCo introduced a hard cap of nine years to the tenure of the independent directors of listed companies and enhanced remuneration disclosure requirements for directors and CEOs of listed companies, as part of its continuing efforts to enhance corporate governance standards in the market.

The Group's overall risk management framework, which is approved by its Board Risk Management Committee ("**RMC**"), ensures that key risks covering strategic, financial, operational, legal, regulatory and reputational risks are identified, measured and monitored effectively across the organisation. Mitigating actions are put in place and progress reported to the RMC. The management of the risks are also in accordance with policies that MAS, its regulator, has approved.

As a key financial market infrastructure that operates trading, clearing, settlement and depository activities, the Group manages its risks on two fronts – risks at the enterprise level, and credit and liquidity risks arising from its clearing and settlement business. For enterprise-wide risks, the Group focuses operational risks including cyber and outsourcing risks with emphasis on the preparedness, plans and readiness for continuity of operations when an incident occurs. As a second line of defence, the risk management unit maintains an independent oversight on the operating units' (first line of defence) risk management processes. In its clearing and settlement business, SGX's role is to ensure the operation of a safe and efficient clearing facility, so as to minimise systemic risks for its participants. This is achieved through pre-emptive risk management, vigilant daily risk monitoring, swift mitigation actions, effective margining, rigorous stress testing and robust clearing fund resources to manage members' credit and liquidity risks.

The Group is committed to upholding itself to high regulatory standards and adopting leading risk management practices to ensure not only the well-functioning of its markets but also capital efficiency for its participants. The risk frameworks are continuously refined to be aligned with global market best practices and meet market demands.

The Group is also financially and operationally set up in conformance with international risk management standards. It has attained the status of a Foreign Board of Trade from the U.S. Commodity Futures Trading Commission and is recognised by the European Securities and Market Authority as a third-country central counterparty for both securities and derivatives. SGX also fully meets the Principles for Financial Market Infrastructures ("**PFMI**") standards and is certified as a Qualified Central Counterparty under the Basel III framework.

The Group has earned its customers' confidence and trust through regular engagements with the industry to increase awareness and transparency on risk management issues, and to advocate its risk practices. In addition, SGX's proportionate contribution to the default fund of the Clearing Houses is one of the highest among global clearing houses, with its own capital forming at least a 25% share of the default funds. As at 31 December 2023, SGX's commitment to CDP and the SGX-DC clearing funds were S$40 million and S$144 million, respectively.

Experienced management team and Board

The Group is managed by a strong executive management team, which has extensive experience in investment management, capital markets, banking, finance, risk management, regulation, technology and human resources management. This is instrumental in managing the Group's business and providing strategic leadership.

The Group has an experienced Board with core competencies in banking, finance, accounting, business acumen, management experience, exchange industry knowledge, technology expertise, familiarity with regulatory requirements and knowledge of risk management, audit and internal controls.

The Board exercises due diligence and independent judgement and makes decisions objectively in the best interests of the Group. The Board also aids in the development of strategic proposals and oversees effective implementation of set objectives by the management team. The Board has 12 members as at the date of this Supplemental Offering Circular, comprising nine independent directors and three non-independent directors. Out of the 12 Board members, four are female directors.

The Group believes that the Board and its management team have been, and will continue to be, instrumental in the financial and operational performance of the Group and in cultivating a strong and positive working relationship with the Group's regulators and business partners. For further information on the Board and the Group's management team, see "*Directors and Management*".

Focus on sustainability

The Group is committed to building a sustainable business and sustainable finance ecosystem that creates long-term value for its stakeholders, and developing a positive and lasting contribution on society. In particular, the Group aims to be an enabler of climate transition in Asia and globally, and aligns its sustainability goals to the interests of its stakeholders such as issuers, investors, regulators, communities and employees as well as Singapore's sustainable transition. The Group incorporates environmental, social and governance considerations in its decision-making in the multiple roles that it plays: 1) as a listed company, 2) as a business, 3) as a regulator and 4) in the ecosystem which it operates in.

As a listed company

As a listed company, SGX is committed to demonstrative leadership, in particular on credible climate change mitigation and to facilitate the transition to a low carbon economy. The Group was the first Asian exchange committed to 1.5°C-aligned science-based emission reduction targets across scope 1 to scope 3, as validated by SBTi (the Science Based Targets initiative). In September 2021, SGX reinforced its commitments to support and drive net zero transition of the financial sector as a founding signatory of the Net Zero Financial Service Providers Alliance ("**NZFSPA**"), a sub-sector alliance of Glasgow Financial Alliance for Net Zero ("**GFANZ**"). SGX will set more specific targets, transition plan and report its progress according to the exchanges' NZFSPA framework.

SGX's Sustainability Report adheres to globally-recognised frameworks, namely the Global Reporting Initiative ("**GRI**") Standards, the Sustainability Accounting Standards Board ("**SASB**") for Security & Commodity Exchanges and the Task Force on Climate-Related Financial Disclosures ("**TCFD**") recommendations.

As a regulator

SGX RegCo introduced sustainability reporting in 2016 to require all listed companies to publish a sustainability report containing five primary components on a "comply or explain" basis. The regime was elevated to include climate-related disclosures based on the recommendations of the TCFD implemented on a phased approach from 2022. To further advance its sustainability reporting regime, the Group is evaluating the adoption of the International Sustainability Standards Board ("**ISSB**") standards for the SGX-ST listed companies, which build on the foundation of TCFD recommendations and receive market-wide support globally as a comprehensive global baseline of sustainability disclosures to meet the needs of investors and financial markets. SGX RegCo is also the co-secretariat for Sustainability Reporting Advisory Committee ("**SRAC**"), which is an industry-led committee set up by the Accounting and Corporate Regulatory Authority of Singapore and SGX RegCo to advise on the roadmap for advancing sustainability reporting by companies in Singapore.

As a business

The Group has been developing opportunities and growing efforts to build new green and sustainable revenues over time as well as futureproofing its existing businesses across asset classes. Recent examples include the launch of a global shelf of SGX MSCI Climate Action Index futures by the Group in June 2023 that offer market participants a broader choice of climate risk management solutions, and the listing and trading of iShares MSCI Asia Ex-Japan Climate Action ETF in September 2023, which was the largest equity ETF launched in Singapore, with assets under management ("**AUM**") of U.S.$426 million at launch.

The Group is one of the leading listing venues for international green, social, sustainability and sustainability-linked ("**GSSS**") debt securities in Asia Pacific and had expanded the number of GSSS debt securities listed on the SGX-ST to over 420 as of 31 December 2023. Over the past 12 months, the proportion of GSSS debt securities listed out of all bond listings on the SGX-ST (excluding Fannie Mae's mortgage backed securities) stands at 16%.

As a key commodities futures exchange, SGX has launched a suite of energy metal derivatives that are key raw materials in the electric vehicle production process in order to help in the price risk management and support the transition of the passenger transportation industry. The Group has also listed steel rebar futures as steel is a continually recyclable material and is a key metal used in the development of renewable energy sources.

In the ecosystem

The Group actively engages with its ecosystem locally, regionally and globally through sustainability-related networks and platforms, and works closely with stakeholders such as issuers, investors, regulators, standard-setters and sustainability-related networks to foster collaborations and partnerships in areas such as disclosures, best practices and guidelines, regulations, product methodology and development and capacity development.

In the local context, SGX is leading the charge with partners like MAS, SRAC and Singapore Sustainable Finance Association ("**SSFA**") in shaping the sustainable finance landscape and providing guidance to market participants. SGX has been collaborating with partners in developing and introducing new sustainable finance products and solutions to the market as well as providing training courses and workshops related to sustainability and emerging standards (e.g. TCFD, ISSB) to market participants, including listed companies and their board of directors, as well as bond issuers.

On the regional and global front, the Group has been active in key platforms such as GFANZ as a member of the GFANZ Principals Group, a host of the GFANZ APAC Network and the global co-chair of the GFANZ net zero index investing workstream; the ASEAN Exchanges ESG Working Group; and China-Singapore Green Finance Taskforce under the auspices of People's Bank of China and MAS.

With these holistic efforts, the Group and its ecosystem are well-placed to capitalise on the new opportunities and mitigate risks related to sustainable development and climate transition in Asia and beyond. For further information, SGX's Sustainability Reports are publicly available on its website.

BUSINESS STRATEGIES

The Group's three key strategies are as follows:

Advance its leadership as a multi-asset exchange

The Group is Asia's most international multi-asset exchange and its key priority is to continue to grow its business across asset classes and geographies.

The Group has placed priority on expanding its products and services in FX, commodities and fixed income asset classes. This takes into account the size of the potential market, readiness of the existing ecosystem in the region and the products and platforms that the Group already has in place in order to grow in these asset classes.

FX as an asset class is the largest off-exchange market globally with an estimate of U.S.$7.5 trillion traded daily (as measured by the Bank of International Settlements Triennial Central Bank Survey of foreign exchange conducted in 2022). The trend in global regulations is to require greater transparency, and the Group expects more FX transactions to be shifted onto exchanges. Coupled with Singapore being the largest FX centre in Asia Pacific according to the Bank of International Settlements last Triennial Central Bank Survey of foreign exchange and over-the-counter ("**OTC**") derivatives markets in 2022, the Group believes that it is well positioned to tap on growth opportunities in exchange-traded FX derivatives. As at 31 December 2023, the Group had 25 FX futures contracts and options contracts, and it aims to add more Asian FX contracts going forward.

The Group continues to grow and diversify its FX offerings by bridging OTC and listed markets. Its innovative FlexC FX futures product offering brings together the bilateral flexibility of OTC FX with the capital efficiency and surety of centrally cleared futures. With most FX contracts still traded OTC, the futures market represents a small segment of the entire FX market. The Group will also focus on developing its FX futures franchise by growing market share and enhancing the distribution of key products in Asian currencies. The Group will also grow this asset class by promoting it to its existing derivatives clients as a complementary risk hedging or margin offsetting instrument to their portfolio. Supported by the Group's FX trading technology providers, SGX FX Systems UK Limited (formerly known as BidFX Systems Ltd) ("**SGX FX UK**") and SGX FX Systems Singapore Pte. Ltd. (formerly known as MaxxTrader Systems Pte. Ltd.) ("**SGX FX Singapore**"), which provide cutting-edge FX technology and workflow solutions for both the buy-side and sell-side and the launch of SGX CurrencyNode, an FX electronic communication network which connects global participants anonymously to OTC FX liquidity pools, the Group will continue its efforts in building a fully-integrated and scalable FX platform that will become a global one-stop venue for international FX futures and OTC participants, facilitating international trade and risk management.

In January 2021, SGX and Temasek formed a joint venture, Marketnode, which is Asia Pacific's first exchange-led digital asset venture that focuses on capital markets workflows through smart contracts, ledger and tokenisation technologies.

In commodities, the Group aims to deepen its product anchors with a focus on its bulk commodity franchise. The Group will leverage on its established and market-leading position to scale its virtual steel mill offering of iron ore, coking coal, and forward freight agreement ("**FFA**"), while expanding its global trade and transport strategy in physical and derivatives marketplaces. As the commodity industry's decarbonisation efforts intensify, the Group will look to support price risk management related to energy transition, carbon and greener fuel sources. Key areas of development include (i) the continued financialisaton of its commodities products as key macro proxies for Asia and China and (ii) incubating market opportunities in seaborne and offshore China-related commodities, while nurturing fast-growing products in its commodities suite.

Verified Impact Exchange Holdings Pte. Ltd. ("**VIEH**") is a joint venture company established by Temasek Holdings (through its subsidiary, Pieter Investments Pte. Ltd.), DBS Bank Ltd. (through its subsidiary, DBS Finnovation Pte. Ltd.), Standard Chartered Bank (Singapore) Limited and SGX (through its wholly-owned subsidiary, Asian Gateway Investments Pte. Ltd. ("**AGI"**)). The joint venture has incorporated Climate Impact X Pte. Ltd. ("**CIX**"), which operates an international marketplace and exchange for the listing and trading of voluntary carbon credits. In November 2023, Mizuho Financial Group, Inc. announced its plan to invest in CIX through its subsidiary Mizuho Innovation Frontier. As at 31 December 2023, AGI held 24% interest in VIEH.

Enlarge its impact as an international brand

The Group operates from eight[7] overseas offices in Beijing, Chicago, Hong Kong, London, Mumbai, New York, Shanghai and Tokyo. These overseas offices are critical to the Group's acquisition of new clients and deepening client engagement. The overseas distribution network distributes the Group's growing pool of products and services designed for international investors and market participants, and the Chicago and New York offices (established in September 2017 and October 2018, respectively) are the three most recent establishments that have taken place.

The Group expanded its international footprint in the United States to serve a growing client base in the United States. This expansion has allowed the Group to see greater participation from the United States in the Group's after-hours session (T+1) in derivatives trading and increased interest from the United States in its spectrum of clients, multi-asset products and platforms.

[7] Excluding subsidiaries

The Group intends to increase its international presence by growing the number of equity and debt listings. The Group continues to broaden its geographical coverage, deepen the sectoral focus and potentially new product development to win a higher share of international listings. The Group will enable more transactions from a broader range of global issuers by attracting capital and liquidity from international and more diverse investors. For debt listings, the Group will seek to maintain its leading market share through direct issuer engagement, attracting new issuers from selected geographies and innovative asset-backed securities products and building on its leading position in green and sustainable bonds and regional structured bonds.

The Group also aims to increase international trading and clearing activity. The Group will expand its pool of institutional "Buy Side" clients by adopting a more targeted client management strategy and sales effort. The Group will engage global market makers to support new product launches and enable overseas brokers as SGX members to channel international clients' business to Singapore.

Expand network as best-in-class partner

The Group intends to grow its business partnerships and alliances with regional and global exchanges as a strategy to achieve growth. Such international collaborations include the collaborative listings agreement with Nasdaq and memoranda of understanding signed with other exchanges and intermediaries. The Group intends to collaborate with market infrastructures and market operators to grow cross-border flows. The Group will also continue to develop partnership models with other exchanges and market participants to enhance service capabilities and achieve mutual growth.

The Group continues to build scale for market participants through strategic investments and partnerships as well as growing its global network of collaborations and alliances. These include strengthening capital markets connectivity between Singapore and China with the launch of the first pair of ETFs under a product link with Shanghai Stock Exchange in December 2023, which built on the successful launch of a similar link with Shenzhen Stock Exchange in December 2022.

In India, SGX's groundbreaking work with a first-of-its-kind trading link in Gujarat International Finance Tech City with the National Stock Exchange of India (the "**NSE**") has promoted greater access for international investors. Full-scale operations of the NSE IX-SGX GIFT Connect ("**GIFT Connect**") commenced in July 2023. In a first for pan-Association of Southeast Asian Nations ("**ASEAN**") connectivity and regional stock market collaboration, SGX launched a two-way, exchange-level depository receipts ("**DR**") linkage with the Stock Exchange of Thailand in May 2023. In November 2021, the New Zealand's Exchange's suite of dairy derivatives started to trade exclusively on the SGX-ST following a strategic partnership designed to unlock and accelerate the growth potential of the global dairy derivatives market.

In the United States, SGX continues to strengthen its East-West corridor, providing companies with seamless and wider access to global capital. It signed a memorandum of understanding with the New York Stock Exchange ("**NYSE**") in July 2022 to collaborate on the dual listing of companies on both exchanges and work together in other key areas focused on the capital markets. SGX entered an agreement with Nasdaq in July 2020 to cooperate on regulatory matters, building on an existing collaboration to help companies access capital markets funding in both jurisdictions.

OPERATING SEGMENTS

The Group is organised into four operating segments, namely FICC, Equities – Cash, Equities – Derivatives and Platform.

(A) FICC

The Group's FICC business operates its fixed income, and currencies and commodities businesses.

Fixed income

Fixed income listing

The debt market is a market for the issuance, trading and settlement in debt instruments of various types. Debt instruments, also known as fixed income securities, are issued by a wide range of organisations such as statutory corporations or bodies, banks, financial institutions and corporate bodies.

The Group is one of the leading listing venues for international debt securities in Asia Pacific with more than 5,400 active debt securities across 20 currencies by issuers from 49 countries, as at 31 December 2023. The outstanding amount issued has exceeded S$2.4 trillion, as at 31 December 2023. The Group is also the most international listing venue in Asia Pacific, with more than 85%[8] of its listed debt securities originating from outside Singapore with diverse issuer profiles and sectors as at 31 December 2023. The Group's strategic focus is on building its bond market ecosystem beyond Asia as bond markets become increasingly globalised.

In FY2023, the Group had 918 bond listings, raising approximately S$243.4 billion and has more than 44% market share in the listed Asia Pacific G3 issuances.

The following table sets forth the number of bond listings and amounts raised for the periods indicated:

	For the year ended 30 June			For the half year ended 31 December	
	2021	**2022**	**2023**	**2022**	**2023**
Number of bond listings	795	1,179	918	449	489
Amount issued (S$ billion)	389.0	429.6	243.4	104.3	131.7

Fixed income trading

The Group's standing as one of the leading listing venues for fixed income securities in Asia (ex-Japan) puts it in a good position to develop capabilities in the Asian and Emerging Markets bond markets.

Currencies and commodities

Currencies

SGX operates the world's largest Asian FX futures marketplace. It offers a comprehensive suite of FX futures and options contracts across major currencies including the Singapore Dollar, Chinese Renminbi, Indian Rupee, Euro, Australian Dollar, Japanese Yen, Korean Won, Taiwanese Dollar, Indonesian Rupiah, Malaysian Ringgit, Philippines Peso and Thai Baht. This suite of Asian FX products enables customers to manage their currency exposures.

Uncertainties over the growth outlook in key Asian economies, coupled with continued tightening by major central banks around the world, have bolstered risk-management activity on SGX's FX futures marketplace. For FY2023, the Group achieved trading volumes of 36.6 million contracts for its FX futures, representing a 28.5% year-on-year increase from FY2022. For 1H FY2024, the Group achieved trading volumes of 19.0 million contracts for its FX futures, representing a 23.8% increase from the same in respect of 1H FY2023.

As at 31 December 2023, the Group had a total of 34 currency pairs for FX futures contracts and a more than 80% and more than 70% market share for the listed USD/CNH and INR/USD futures contracts, respectively.

8 Geographical breakdown of outstanding bonds listed on the SGX-ST as at 31 December 2023: North America – 45%, South Korea – 12%, Singapore – 11%, Greater China – 10%, Japan – 5% and other 17%.

Commodities

Commodity derivatives allow both investors and finance managers to manage their risk against volatility in commodities prices and for investment purposes. SGX offers an extensive suite of commodities products, complementing Singapore's status as the largest physical commodity trading hub in Asia. The Group has established key pillars of liquidity and price benchmarks in the following areas:

- *Virtual Steel Mill* – The Group is the global leader in the offshore market for iron ore derivatives, with 3.6 billion tonnes and 2.5 billion tonnes of iron ore traded in FY2023 and 1H FY2024 respectively. In addition to the benchmark 62% FE Fines contract, the Group offers a suite of 65% and 58% iron ore fines and lump premium futures, respectively. With the objective of providing participants with a complete risk management solution across the steel value chain, the Group expanded its footprint in steel derivatives globally. In May 2021, SGX successfully launched the SGX Mysteel Shanghai Rebar (USD) Swap in partnership with Mysteel Global, offering international participants access into a key sector that has been driving China's growth. This offers a unique risk management tool for physical and financial participants internationally to access China's domestic steel market.

- *Rubber* – With over 100 years of rubber trading heritage, Singapore has formed its role as a price discovery hub for rubber. The Group provides the global pricing benchmark for natural rubber referenced by a geographically diverse range of participants from more than 200 cities. For management of price volatilities arising from imbalances of supply and demand, the Group offers a suite of risk management tools covering Ribbed Smoked Sheet 3 ("**RSS3**") futures, Technically Specified Rubber 20 ("**TSR20**") futures and TSR20 forwards, including the world's first TSR20 rubber options. The rubber futures and forwards contracts offer an alternative channel for physical delivery. As a nerve centre for rubber trading, the Group operates the Singapore Commodity Exchange Limited arbitration centre for physical rubber contract disputes as well.

- *Freight* – The Group offers strong capital efficient solutions across a range of shipping derivatives contracts on the Capesize, Panamax, Supramax and Handysize vessel time charters as well as key individual voyage routes, used by shipowners, chartering, trading companies and shipbrokers in the key dry bulk markets of iron ore, coking coal and thermal coal. Established as one of its earliest pillars in the Commodities business, the Group has grown its freight derivatives business over the past decade to firmly embed its leading position as the largest clearing house for FFAs globally with a market share of 67.4% for calendar year ended 31 December 2023. Global logistics is a core anchor of the Group's business, anchored by its wholly-owned subsidiary, The Baltic Exchange Limited (the "**Baltic Exchange**"), which is the leading freight market information provider. More than 2 million FFA contracts changed hands on the SGX-ST in FY2023, representing a year-on-year increase of 6.0% from FY2022, amid softening demand for iron ore and coal following China's COVID-19 resurgence and lockdown in early 2022. The Group cleared over 2.4 million contracts for calendar year ended 31 December 2023, a year-on-year increase of 34.2%from the prior calendar year, amid China's re-opening of its economy and lifting of the Australian coal ban in early 2023, as well as supported by targeted stimulus measures in the second half of 2023. Leveraging on the Baltic Exchange's independent freight price assessments, the Group expanded its clearing services for seaborne freight in July 2021 by adding three new FFA and futures contracts for Liquified Natural Gas ("**LNG**") vessels. In February 2023, the Group also expanded its FFA offerings to include container freight contracts, covering four main East-West trade routes from China/East Asia to U.S. West Coast, U.S. East Coast, North Europe and Mediterranean.

- *Petrochemicals* – To address investors' risk management needs in an environment of volatile petrochemical prices, the Group offers a suite of petrochemical swap and futures related to petrochemicals such as benzene, paraxylene, polypropylene, polyethylene, styrene monomer and mono-ethylene glycol. These contracts enable petrochemical end-users to fix the purchase price of their future petrochemical consumption and manage their risk exposure to price fluctuations. In February 2020, the Group launched methanol futures and swap contracts to help methanol producers, traders and downstream users manage risk and improve price discovery amid rising demand.

- *Oil* – Singapore is the world's top bunkering port and the world's third largest and Asia's largest physical oil trading centre. The Group believes that it is well placed to offer a host of risk management tools associated with energy prices such as futures contracts on marine fuel oils used by ships and clearing infrastructure for oil futures and swaps contracts. These contracts include, among others, the SGX Platts Gasoil FOB Singapore Index Futures, SGX Singapore FO 180cst Swap and SGX Naphtha Swap CFR Japan. To meet clients' environmental, social and governance ("**ESG**") needs, the Group has also launched environmentally friendlier products. For example, ahead of the IMO2020 implementation of the fuel oil sulphur limit in January 2020, the Group launched Low Sulphur Fuel Oil derivative contracts in November 2019.

- *Electricity* – An electricity futures market is a key element in Singapore becoming Asia's first fully developed energy market and the Asian Energy Hub. As one of Asia's leading futures exchanges, SGX is well positioned to establish and grow this market. The Group launched Asia's first electricity futures in 2015, enabling full liberalisation of Singapore's electricity market. The SGX Electricity Futures market provides a useful risk management tool for both electricity retailers and generators to manage commercial and operation risk. These contracts include the SGX Uniform Singapore Energy Price ("**USEP**") Quarterly Base Load Electricity Futures and the SGX USEP Monthly Base Load Electricity Futures.

- *Coal* – SGX offers derivatives based on key Indonesian thermal coal price benchmarks which are Asia centric for trading and clearing. SGX offers both futures and swaps on IHS McCloskey M42 Indonesian 4200kc GAR FOB marker. SGX also offers coking coal derivative products for trading and clearing, and has swaps and futures available on the following two indices – (a) TSI CFR China Premium Coking Coal and (b) TSI FOB Australia Premium Coking Coal. These derivative products address Asian coal industry's demand for an effective tool for hedging and trading price risk while mitigating counter party credit risk.

- *Energy Metals* - Amid the global decarbonisation movement, nations are embarking on net zero policies with the transportation sector taking centre stage. Energy metals provide a crucial backbone underpinning the green movement, with heightened price volatility driving the development of risk management tools as key hedging mechanisms against price exposures. Against this backdrop, SGX launched a suite of energy metal futures derivatives for cobalt metal, cobalt hydroxide, lithium carbonate and lithium hydroxide in September 2022. SGX is the first international exchange to launch such energy metals derivatives.

- *Dairy* - Participants in the international dairy markets are exposed to a high degree of price volatility. SGX-NZX Dairy Derivatives Market provides the dairy industry with a forward view of dairy prices and a cash settled instrument for managing price risk simply and efficiently. This market provides tools which participants can use to mitigate the risks associated with movements in the price of dairy products. Following a strategic partnership agreement entered between SGX and NZX in 2021, the NZX's suite of dairy derivatives contracts are currently traded exclusively on the SGX-ST.

The following table sets forth the Derivatives Daily Average Volumes ("**DDAV**") for the Group's currencies and commodity products for the periods indicated.

	For the year ended 30 June			For the half year ended 31 December	
	2021	2022	2023	2022	2023
			'000		
Currency futures	108.0	116.9	149.7	100.8	184.4
Iron Ore derivatives	80.7	98.7	140.0	131.3	196.8
Rubber futures	6.8	6.9	8.5	8.2	12.0
Freight derivatives	5.8	7.6	8.1	6.9	10.1
Others	4.2	4.9	3.3	3.0	4.3
Total	205.5	235.0	309.6	250.2	407.6

Currencies and commodities clearing

SGX-DC, a wholly-owned subsidiary of SGX, uses the Titan DC system for the clearing of exchange-traded products and commodity products. Titan DC is built on the Genium™ clearing solution developed by Nasdaq. Together with Titan DT, an electronic derivative trading solution that is also developed by Nasdaq, Titan DC offers members a common interface for derivatives trading and clearing. Trade and position management are processed on a real-time basis. The ability to perform real-time trade and position management and support claims for margin offsets ensures that intra-day and end-of-day margins accurately reflect the risk exposure of each Clearing Member.

On 16 March 2021, SGX added Marex's bespoke ferrous derivative data analytics products to Titan which applies proprietary analytics tools on publicly available data for SGX commodity derivatives to provide Titan OTC participants with in-depth analysis and richer datasets. Titan OTC is a one-stop, full-service OTC platform that supports block trade registration, order management, content and analytics across multiple asset classes and trading instruments.

On 30 June 2021, SGX announced that it had added S&P Global Platts ("**Platts**") market- leading benchmark assessments and news to Titan OTC. Through this new collaboration between SGX and Platts, Titan OTC participants can access Platts' real-time data and market-moving insights on commodities including iron ore, coking coal, steel, aluminium, copper, freight and battery metals, via a single platform.

SGX FX Systems UK Limited (formerly known as BidFX Systems Ltd)

SGX FX UK, a wholly-owned subsidiary of the Group, is one of the leading cloud-based FX trading technology provider for institutional investors. Designed to be the turnkey, single sign-on FX trading solution, SGX FX UK enables clients to manage their trades across both OTC and futures FX markets, with an integrated workflow management system. As at 31 December 2023, SGX FX UK had over 100 clients including banks, hedge funds and asset managers.

SGX FX UK underwent a rebranding exercise in November 2023 where it was renamed from "BidFX Systems Ltd" to "SGX FX Systems UK Limited".

SGX FX Systems Singapore Pte. Ltd. (formerly known as MaxxTrader Systems Pte. Ltd.)

On 23 July 2021, SGX announced it is further extending its reach into the FX OTC space by fully acquiring the single source and direct-to-market FX trading technology provider, MaxxTrader Systems Pte. Ltd. (the "**MaxxTrader Acquisition**"). On 4 February 2022, SGX announced the completion of the MaxxTrader Acquisition for a cash consideration of approximately U.S.$125 million. MaxxTrader Systems Pte. Ltd. has been renamed to SGX FX Systems Singapore Pte. Ltd.

SGX FX Singapore is a leading provider of FX pricing and risk solutions for sell-side institutions including banks and broker-dealers. Its strong sell-side client base complements the buy-side clientele of SGX FX UK, a leading cloud-based provider of electronic FX trading solutions which SGX acquired in 2020. Together, these acquisitions form part of SGX's multi-phase strategy in building an integrated Asian FX marketplace for global investors.

Since the company's incorporation in 2008, SGX FX Singapore has built a strong, global client and dealer franchise with over 100 global banks, regional banks, broker-dealers and hedge funds currently connected to its platform.

On 4 February 2022, SGX also announced the incorporation of two wholly-owned subsidiaries, MaxxTrader Systems UK Limited and MaxxTrader Systems US LLC. The principal activities of these subsidiaries are to provide sales support services relating to FX platform businesses.

(B) Equities - Cash

The Group is one of the world's most international stock exchanges. As at 31 December 2023, there were 632 companies listed on SGX-ST with approximately 35% of the number of companies listed on the SGX-ST originating outside of Singapore. With a total market capitalisation of listed companies of approximately S$802.0 billion as at 31 December 2023, SGX is among the largest stock markets in Southeast Asia, and is ranked 4th and 8th among listed exchanges in the Asia-Pacific[9] region and globally[10], respectively. Key sectors include consumer, technology, healthcare, maritime, offshore services & energy, commodities and real estate. SGX is also the second largest Real Estate Investment Trust ("**REIT**") listing venue in Asia with a market capitalisation for REITs of more than S$100.0 billion as at 31 December 2023. The Group's securities daily average value ("**SDAV**") traded were approximately S$1.1 billion and S$1.0 billion for FY2023 and 1H FY2024, respectively. The Group seeks to advance its securities market and strengthen its position as a major international venue for capital raising.

The Group has a strong track record as a successful listing venue for international issuers who wish to take advantage of their growing presence in Asia. The Group seeks to continuously strengthen its initial public offerings ("**IPO**") strategy by building on and sustaining an ecosystem that can attract both Singapore and international companies to have their primary and secondary listings on the SGX-ST. The Group continues to enhance the IPO ecosystem by recruiting new and reactivating inactive issuer managers and sponsors and establishing collaborations with government agencies and other partners to promote the SGX-ST as a listing venue. While the Group builds on its sectoral strength in key sectors such as consumer, healthcare, maritime & offshore services, mineral, oil & gas and real estate, it is growing the technology sector, in line with the Singapore Smart Nation initiative. SGX had entered into a collaborative listing agreement with Nasdaq in October 2017 and introduced dual-class share listings structures in 2018. SGX has also established collaboration with NYSE for dual listings as well as a partnership with the global investment firm 65 Equity Partners Holdings Pte. Ltd. The Group has actively supported listed companies in broadening their investors' outreach to new customer segments such as private equity and venture capital firms.

In growing secondary market liquidity, the Group has introduced initiatives such as Market Maker and Active Trader ("**MMAT**") programmes, investor outreach activities and market participant engagements. The MMAT programmes aim to improve liquidity and facilitate trading at competitive bid and offer prices. the Group plans to attract MMAT participants that are likely to trade across the Group's cash equities markets, and growing regional investor participants (via continued development of the regional eco-system). The Group has also embarked on research and profiling efforts for its listed companies. My Gateway is a SGX publication that regularly generates investor education content including research,

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9 Exchanges include the Australian Securities Exchange ("**ASX**"), Bursa Malaysia Berhad ("**BMD**"), the Hong Kong Exchanges and Clearing Limited ("**HKEX**"), the Japan Exchange Group ("JPX") and the Philippine Stock Exchange ("PSE").

10 Exchanges include ASX, BMD, Deutsche Börse AG, HKEX, The Intercontinental Exchange, JPX, The London Stock Exchange, Nasdaq and PSE.

market news and profiling of stocks. StockFacts is an online screener tool to help investors screen shares based on stock fundamentals. In addition, The Academy conducts over 300 investor education workshops annually. The Group continuously innovates and expands its suite of products to encourage liquidity and market participation. For example, SGX continues to expand the ETF product suite with the establishment of ETF links with SZSE and SSE in 2021 and 2023, respectively, which provided enhanced offering exposure to China fixed income.

The Equities - Cash business operates the only cash equity securities market in Singapore and provides the full range of services from issuer services, securities trading and clearing, to post trade services.

For FY2023, revenue from the Group's cash equities business decreased by 10.9% from FY2022 to S$346.1 million as SDAV normalised to pre-COVID-19 levels [11].

For 1H FY2024, revenue from the Group's cash equities business decreased by 5.6% from 1H FY2023 to S$159.6 million, due largely to elevated interest rates and weak market sentiments[12].

Cash equities listing

The primary issuances of equity securities can take several forms, including IPOs, which are the first public offerings of securities that issuers undertake, and follow-on issuances, which are offerings of securities made by already-listed companies. Follow-on issuances can include rights issues, which are issuances of new shares to existing shareholders on a *pro rata* basis, as well as placements of new shares to institutional investors.

The SGX-ST offers two listing platforms, Mainboard and Catalist, for companies that wish to list their shares on the SGX-ST.

To qualify for a listing on the Mainboard, an issuer must meet specific prescribed listing criteria relating to, among others, its market capitalisation, profitability and track record. There are also ongoing listing obligations including timely disclosure of all material information to the market.

Catalist is intended for the listing of high-growth companies that do not yet meet the more stringent admission criteria of the Mainboard. There is a streamlined transfer process to move a listing from Catalist to the Mainboard for issuers ready to do so. Companies listed on Catalist are directly supervised by sponsors, which are qualified professional companies typically experienced in corporate finance and compliance advisory work, directly. Sponsors are authorised and regulated by SGX RegCo through rigorous admission criteria and continuing obligations.

In seeking listing applicants, the Group adopts a targeted sectorial approach, focusing and developing niche advantages and strengths in the key sectors of technology, consumer, healthcare, maritime, offshore services & energy, commodities and real estate. The Group also has the largest Asia REITs and business trust portfolio outside Japan and the largest pool of listed maritime, offshore services & energy companies among Asia Pacific exchanges.

As at 31 December 2023, there were 205 Catalist listed companies from a broad range of sectors, offering investors diverse investment opportunities.

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[11] These figures in respect of the revenue from the Group's cash equities business for FY2022 and FY2023 respectively are based on the classification of the Group's operating segments prior to the Reorganisation. It should be noted that these figures are not directly comparable with the figures in respect of the revenue from the Group's cash equities business for 1H FY2023 (which have been restated) and 1H FY2024 respectively, which are based on the classification of the Group's operating segments following the Reorganisation. Please refer to Note 20 of the Reviewed Interim Financial Statements for more details.

[12] These figures in respect of the revenue from the Group's cash equities business for 1H FY2023 (which have been restated) and 1H FY2024 respectively are based the classification of the Group's operating segments following the Reorganisation. It should be noted that these figures are not directly comparable with the figures in respect of the revenue from the Group's cash equities business for FY2022 and FY2023 respectively, which are based on the classification of the Group's operating segments prior to the Reorganisation. Please refer to Note 20 of the Reviewed Interim Financial Statements for more details.

The following table sets forth the number of IPOs, new equity raised and secondary equity raised for the periods indicated:

	For the year ended 30 June			For the half year ended 31 December	
	2021	**2022**	**2023**	**2022**	**2023**
New listings					
Mainboard	5	7	2	1	1
Catalist	6	10	6	3	3
Total	11	17	8	4	4
Equity raised (S$ billion)					
IPO					
Mainboard	1.00	1.82	0.00	0.00	0.00
Catalist	0.03	0.08	0.04	0.01	0.02
Total	1.03	1.90	0.04	0.01	0.02
Post-IPO	16.86	5.65	4.84	2.40	0.61
Total equity raised	17.89	7.55	4.88	2.41	0.63

Issuer services

The Group believes that providing support to issuers after their listing on the SGX-ST is important to the success of the securities market. One form of support is corporate access where listed companies profile themselves to institutional investors and private banking clients. In FY2023, the Group partnered with brokers and listed companies to co-host 52 corporate access events (including both virtual and physical) to over 1,000 institutional investors and private banking clients in cities including Singapore, Bangkok, Beijing, Hong Kong, Kuala Lumpur, London, New York, Seoul, Shanghai, Sydney, Taipei and Tokyo.

The Group also conducts investor education activities for retail and institutional investors, ranging from complimentary data-driven research reports to the SGX Academy's training courses. These activities, together with the collaborative efforts of the entire ecosystem to re-invigorate the markets, have contributed to healthy participation by investors.

The Group offers corporate actions services to issuers in capital raising activities and dividend distribution. In addition, the Group provides a comprehensive suite of products in support of company global profiling, investor targeting, capital raising and governance activities.

Cash equities trading and clearing

The securities trading business covers the purchase, sale and clearing of all securities products traded on the SGX-ST. The major sources of income that the Group derives from this operating segment are trading and clearing fees.

Products

Besides equities, the following securities products are traded on the SGX-ST:

- REITs and business trusts listed on the SGX-ST;
- ETFs: SGX offered trading in 43 listed ETFs by 11 different issuers as at 31 December 2023. Issuers are charged initial listing and annual listing fees. Corporate action processing fees, if applicable, are charged by CDP. Transaction-based fees charged are trading and clearing fees similar to those of stocks. Listings that offer leveraged or inverse exposure and is therefore labelled as Leverage & Inverse Product ("**L&I Product**");

- Daily leverage certificates ("**DLCs**"): SGX launched 3x and 5x DLCs on regional indices in July 2017 and in January 2018 higher leveraged 7x DLCs were added. In November 2018, 5x DLCs on local and Hong Kong blue chip stocks were launched. As at 31 December 2023, a total of 391 DLCs were listed for trading on the SGX-ST. DLCs are the first of their kind in Asia and one of the fastest-growing trading products in Europe. Issuers are charged an initial listing fee per DLC. Transaction-based fees charged are trading and clearing fees albeit at a lower level compared to stocks;

- Structured warrants: As at 31 December 2023, SGX offered trading in approximately 181 structured warrants issued by two different issuers. Underlying them are indices as well as single stocks. Fees are identical to those charged for DLCs;

- Structured certificates: On 15 August 2023, SGX announced the launch of structured certificates which were listed and available for trading from 30 August 2023. SGX is the first exchange in Asia to offer trading in structured certificates, providing Specified Investment Products (SIP)-qualified investors with access to yield enhancement and participation structured products predominantly available to wealth management investors. The inaugural issue of structured certificates is a yield enhancement product linked to Alibaba Group Holding Limited and is designed with an autocall feature. This product provides investors with the opportunity to earn distributions but with potential for early redemption. The issuer and primary distributors of the structured certificates are (i) Singapore issuers and (ii) United Overseas Bank Limited and UOB Kay Hian Private Limited respectively;

- American Depositary Receipts ("**ADRs**"): As at 31 December 2023, SGX offered trading in 7 ADRs via GlobalQuote. An ADR is a depositary receipt issued by a U.S. financial institution. Trading activity in the ADR segment on SGX is negligible. Transaction-based fees charged are trading and clearing fees similar to those of stocks. As ADRs are not listed but quoted, no listing fees are charged; and

- Singapore Depositary Receipts ("**SDRs**"): On 30 May 2023, SGX launched the new product of SDRs under the Thailand-Singapore DR Linkage. This marks the first exchange-level DR cooperation in ASEAN, demonstrating an important step forward in enhancing regional connectivity. The first batch of 3 SDRs are issued by Phillip Securities Pte Ltd. Transaction-based fees charged are trading and clearing fees similar to those of stocks. As SDRs are not listed but quoted, no listing fees are charged.

In particular, SGX has commenced the listing of actively managed ETFs on the SGX-ST, which are based on the manager's investment expertise, rather than tracking an underlying index. Active ETFs therefore present opportunities for investors to capitalise on potential market inefficiencies, adapt to changing economic environments and potentially generate alpha. On 4 December 2023, SGX announced that SGX RegCo has released a practice note on the listing requirements for active ETFs. On 31 January 2024, SGX listed the first active ETF in Singapore, the Lion-Nomura Japan Active ETF, with AUM of S$37 million. This ETF is managed by Lion Global Investors (LGI) and Nomura Asset Management Singapore. This pioneering ETF provides investors exposure to a diversified portfolio of 50 to 100 Japanese companies, tapping into the strong recovery witnessed in the Japan stock market in the past year.

The Group will continue to develop new products as part of its ongoing efforts to meet the evolving investment appetite and needs of investors.

The table below shows a breakdown of listed entities by listing platform and market capitalisation and the total number of listed securities for the periods indicated.

	For the year ended 30 June			For the half year ended 31 December	
	2021	**2022**	**2023**	**2022**	**2023**
Number of listed companies					
Mainboard	468	447	433	439	427
Catalist	217	214	207	212	205
Total	685	661	640	651	632
Market Capitalisation (S$ billion)					
Mainboard	889.0	855.6	803.2	820.7	794.7
Catalist	12.8	9.8	8.5	9.3	7.7
Total	901.8	865.4	811.7	830.0	802.4
Number of listed securities					
Stocks	685	661	640	651	632
ETFs (including L&I Products)	30	37	40	41	43
DLCs	213	323	435	403	391
Structured Warrants	133	115	146	181	181
ADRs	13	13	7	9	7
SDRs	—	—	3	—	3
Total(1)	1,074	1,149	1,271	1,285	1,257

Note:

(1) Excludes company warrants, global depositary receipts, hedge funds and debt securities

Traded value

SDAV denotes the average value of securities traded on the SGX-ST on each trading day during the given period. The SDAV for FY2023 was approximately S$1.1 billion, compared to approximately S$1.3 billion for FY2022. The total traded value for FY2023 decreased by approximately 14.1% to S$275.5 billion from approximately S$320.8 billion for FY2022.

The SDAV for 1H FY2024 was approximately S$1.0 billion compared to approximately S$1.1 billion for 1H FY2023. The total traded value for 1H FY2024 decreased by approximately 12.2% to S$121.2 billion from approximately S$138.1 billion for 1H FY2023.

The following table lists the SDAV and total trade value on the SGX-ST for the periods indicated.

SDAV

	For the year ended 30 June			For the half year ended 31 December	
	2021	**2022**	**2023**	**2022**	**2023**
			(S$ million)		
Mainboard	1,238.2	1,196.1	1,045.5	1,028.2	915.4
Catalist	68.1	26.8	8.0	8.8	5.3
ETFs, structured warrants and others	43.3	49.9	48.3	50.2	41.0
Total	1,349.5	1,272.9	1,101.8	1,087.2	961.6

Total trade value

	For the year ended 30 June			For the half year ended 31 December	
	2021	**2022**	**2023**	**2022**	**2023**
			(S$ billion)		
Mainboard	312.0	301.4	261.4	130.6	115.3
Catalist	17.2	6.8	2.0	1.1	0.7
ETFs, structured warrants and others	10.9	12.6	12.1	6.4	5.2
Total	340.1	320.8	275.5	138.1	121.2

Post trade services

Revenue from this operating segment is primarily generated from settlement services for trades transacted on the SGX-ST, corporate action services for securities listed on SGX-ST, custody services for assets held with CDP in its capacity as the central securities depository as well as the transfers of securities that take place independent of trading on the exchange.

CDP, in its capacity as a central securities depository, operates a securities settlement system that facilitates (i) the transfer of securities and money to settle trades between CDP and CDP Clearing Members; (ii) the transfer of securities and/or money in settlement of bilateral transactions between a CDP Clearing Member and a depository agent ("**DA**") or between two DAs; and (iii) the transfer of securities between a Clearing Member and its customer's direct account. A customer's direct account is the securities account that the customer maintains directly with CDP. As at the date of this Supplemental Offering Circular, over 1.3 million retail investors' direct accounts are maintained with CDP.

In December 2018, CDP upgraded its securities post trade system, which increased operational efficiency and reduced operational risks via (a) an open access platform, enabling members to use back office systems of their choice and (b) CDP's provision of real-time information via API messages, which further enhanced operational efficiency and enabled greater automation and straight-through processing thereby enabling timely risk management and monitoring of customers' positions.

Concurrent to the upgrade of its securities post trade system in 2018, CDP launched a new securities settlement and depository framework, which included the shortening of the settlement cycle from three to two business days after a trade is executed (i.e. from T+3 days to T+2 days). Moving from a T+3 to a T+2 settlement cycle harmonises CDP's securities settlement cycle with that of global markets (such as the United States, Hong Kong, European Union and Australia) which have adopted a T+2 settlement cycle. The shorter settlement cycles will also reduce counterparty risk exposure, allowing for more efficient use of members' capital. Other improvements associated with the new securities settlement and depository framework include the simultaneous settlement of securities and monies, and the streamlining of CDP notifications.

(C) Equities - Derivatives

The Group believes that it is the only pan-Asian derivatives exchange offering single point access into major Asian markets for managing Asian portfolio risks 22.5 hours a day. The equity derivatives business can be broadly categorised into (i) equity derivative products and (ii) equity derivatives clearing. It is one of the world's most liquid international derivatives market offering derivatives products on the benchmark equity indices of China, India, Japan, Taiwan and ASEAN.

For FY2023, revenue from the Group's equities derivatives business increased by 17.0% from FY2022 to S$363.1 million[13]. Trading and clearing revenue was impacted by a decline in trading volumes, partially offset by higher average fees in key equity derivatives contracts and higher treasury income.

For 1H FY2024, revenue from the Group's equities derivatives business decreased by 6.9% from 1H FY2023 to S$160.7 million due to a decline in trading and clearing revenue, mainly from the volume decline in GIFT Nifty and FTSE China A50 index future contracts[14]. The volume decline in GIFT Nifty was as anticipated given the time required for SGX clearing members and their clients to migrate their systems to the GIFT Connect.

Equity derivative products

The Group offers financial derivative products that can be used to manage risk exposures in equity and currency markets. Such products allow market participants to hedge their investments against volatility and uncertainty.

The Group offers the following types of financial derivative products:

- Equity index futures and options – the Group operates one of Asia's broadest ranges of equity index derivatives, offering its customers single point access into major Asian markets. Its products address close to 100% of Asia-Pacific's gross domestic product in the investible Developed Markets and Emerging Markets. The equity index futures and options contracts offered by the Group include the FTSE China A50 index, GIFT Nifty 50 Index, Japan Nikkei 225 Index, FTSE Taiwan index, MSCI Singapore index, and ASEAN markets such as Vietnam, Philippines, Thailand, Indonesia and Malaysia. On 27 October 2022, SGX announced that it has entered into an agreement with MSCI to license the MSCI Climate Action Indexes for listed future contracts. The MSCI Climate Action Indexes include companies that are taking concrete steps to reduce their carbon emissions. Companies are evaluated based upon a range of climate indicators that assess their current carbon intensity and potential to lead in the climate transition, relative to their peers. As part of efforts to mobilise capital towards climate transition, SGX Equity Derivatives in June launched five futures contracts based on the MSCI Climate Action Indexes, offering global investors a wider range of solutions to help meet their net-zero commitments. On 20 March 2023, SGX launched the SGX Nikkei 225 Climate PAB Futures, with the underlying Nikkei 225 Climate Change 1.5°C Target Index based on the Paris Aligned Benchmark (PAB). This is the world's first climate futures based on the Nikkei 225, allowing global investors to access and manage exposure to Japan with the added benefit of incorporating climate metrics into risk management.

- Single stock futures ("**SSFs**") – SSFs provide access to and risk management solutions around large and liquid individual stocks, offering a broad range of trading opportunities for global investors to meet a variety of equity portfolio needs. The Group has been expanding its suite of equity derivatives products with a range of SSFs across India (49), Singapore (14) and the United States (3), including the launch of a unique Singapore SSF on an Asian high yield bond ETF in FY2022, allowing investors to manage China bond risk.

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13 These figures in respect of the revenue from the Group's equities derivatives business for FY2022 and FY2023 respectively are based on the classification of the Group's operating segments prior to the Reorganisation. It should be noted that these figures are not directly comparable with the figures in respect of the revenue from the Group's equities derivatives business for 1H FY2023 (which have been restated) and 1H FY2024 respectively which are based on the classification of the Group's operating segments following the Reorganisation. Please refer to Note 20 of the Reviewed Interim Financial Statements for more details.

14 These figures in respect of the revenue from the Group's equities derivatives business for 1H FY2023 (which have been restated) and 1H FY2024 respectively are based on the classification of the Group's operating segments following the Reorganisation. It should be noted that these figures are not directly comparable with the figures in respect of the revenue from the Group's equities derivatives business for FY2022 and FY2023 respectively which are based on the classification of the Group's operating segments prior to the Reorganisation. Please refer to Note 20 of the Reviewed Interim Financial Statements for more details.

- Dividend index – the Group is the first international exchange in Asia to list dividend futures contracts, which enable investors to manage their exposures to swings in the income cycles of listed companies. The SGX-ST currently lists dividend futures contracts on the Nikkei Stock Average to help manage risk exposure on Japanese stocks.

The following table sets forth the DDAV for the Group's equity derivative products for the periods indicated.

	For the year ended 30 June			For the half year ended 31 December	
	2021	**2022**	**2023**	**2022**	**2023**
			('000)		
SGX FTSE China A50 Index futures....................	392.8	432.2	383.2	391.8	358.4
SGX Nikkei 225 Index futures.............................	67.1	61.0	55.8	57.2	46.1
SGX Nifty / GIFT Nifty 50 Index futures	99.3	114.1	110.1	115.1	70.8
SGX FTSE Taiwan Index futures.........................	67.5	71.4	68.1	65.1	68.2
SGX MSCI Singapore Index futures	47.8	57.2	57.3	58.8	54.6
Single Stock futures	11.0	11.9	11.3	11.2	9.8
Others	58.4	28.6	21.0	21.9	16.8
Total	743.9	774.0	706.7	721.2	624.6

Equity derivatives clearing

Similar to currency and commodity derivatives, SGX-DC uses Titan DC for the clearing of exchange-traded products and commodity products. SGX-DC is also a qualifying central counterparty, whereby members are subject to lower capital requirement for their trade and default fund exposures under the Basel III framework.

In addition, SGX-DC and Chicago Mercantile Exchange ("**CME**") have a long-standing mutual offset arrangement ("**MOS**") since 1984 that allows market participants to initiate positions on one exchange and transfer these positions to the other exchange. As at 31 December 2023, Nikkei 225 Index Futures, USD Nikkei 225 Index Futures, SGX FTSE Emerging Market Index Futures and SGX FTSE China H50 Index Futures were eligible for mutual offset with CME.

(D) Platform and Others

The Platform operating segment comprises various non-transactional services offered by the Group. These include market data, connectivity, indices, Baltic Exchange, EMC and securities and derivatives membership.

Market data

The Group offers a comprehensive range of real-time price feeds and historical and reference data products for investors in the securities and derivatives markets. The market data function is largely responsible for the development, promotion, compilation and sales of real time, delayed, historical as well as statistical market data and issuer information. Its operations primarily generate market data fees for the Group.

The Group's market data products can be broadly categorised into data feeds, historical and reference data, and corporate statements and corporate action announcements. Target customers include information vendors, trading and clearing members, institutional and private investors, independent software vendors, academia, the media, government bodies and the investing public.

Data feeds

There are primarily three types of data feeds namely, the securities market direct feed, derivatives market direct feed and post trade data feed.

The securities and derivatives market direct feeds provide real-time price information direct from the respective securities and derivatives trading engines. It offers the lowest latency in delivery of market data with granularity at market-by-order level. The target customers for this product would include information vendors, institutions, trading firms and independent software vendors.

The post trade data feed provides trading participants a cost-effective way to view and manage their trade orders on a platform that is independent of their main trading access. This is available for both the securities and derivatives market and is ideal for clearing members and back office functions.

Historical and reference data

The Group maintains an extensive range of historical trade and market information on the securities and derivatives markets. This includes market information on SGX-ST listed securities on daily, weekly, monthly and yearly bases, and historical data on prices, turnover, market capitalisation and trade execution for all securities and derivatives.

Corporate statements and corporate action announcements

Investors who wish to stay on top of corporate statements and corporate action announcements can purchase any of three options namely, (i) real-time announcements via an XML feed directly to its system interface, (ii) real time messaging of the corporate events via the SWIFT network and (iii) an end of day report.

Connectivity

The Group's connectivity solutions are the primary means for market participants to transact with both the securities and derivatives markets. For participants' systems to interface with the trading and clearing engines, the access solutions offer a rich set of trading and clearing APIs for their systems to transact efficiently.

For participants' network linkages within Singapore, the managed network service offers seamless and high availability solutions for connecting participants' premises to both the Group's primary and secondary data centres. Offshore market participants can have access to SGX trading and market data engines from various locations around the globe through SGX network points-of-presence located in Hong Kong and Chicago.

The co-location solution allows customers to place their systems in the same secure, reliable and robust data centre as the Group's trading and market data systems. There are three tiers of co-location services within the data centre to cater to diverse hosting requirements of all financial institutions. Tier 1 provides the fastest access to the Group's trading and market data systems, tier 2 provides competitive hosting services that are significantly faster than other non-co-location subscribers, and tier 3 provides a cost effective and secure hosting environment for non-SGX trading and market data related systems.

In addition, the Group's co-location service offers for all trading participants, financial institutions or service providers who seek interconnectivity with subscribers within the same data centre ecosystem. The Group's co-location service data centre ecosystem has grown over the years. The service currently comprises a diverse set of subscribers, which include trading firms, brokers, banks, exchanges, networks services providers, data vendors and solution providers.

Indices

In 2015, the Group launched its index business, SGX Index Edge ("**iEdge**"), to address the demand for index-linked investments in Asia by issuers and investors. SGX iEdge focuses on collaborative partnerships in order to deliver proprietary and bespoke indexing solutions across a range of underlying instruments, strategies and investment themes.

The Group offers iEdge indices across three categories: Country Exposure, ESG and Climate Exposure, and Thematic Exposure. A few of the more widely used iEdge indices are:

- Country Exposure: iEdge Vietnam 30 Select Index tracks the performance of the largest and most liquid companies listed in Vietnam. Listed on the SGX-ST in August 2023 and managed by China Galaxy Securities ("**CGS**"), the CGS Fullgoal Vietnam 30 Sector Cap ETF raised S$35 million at launch.
- ESG and Climate Exposure: iEdge-UOBAM APAC Yield Focus Green REIT Index tracks the performance of REITs that are listed across the Asia-Pacific and Oceania region with specific focus on dividend yield and environmental attributes of REITs. Listed on the SGX-ST in November 2021 and managed by UOBAM, the UOB APAC Green REIT ETF is the world's first-of-its-kind ETF that enables individuals to invest in quality green REITs across the region. The ETF raised S$83 million at launch.
- Thematic Exposure (REITs theme): Widely referenced as Singapore's REIT Benchmark, SGX's suite of iEdge S-REIT Indices tracks the performance of Singapore's REIT market segment. Listed on the SGX-ST in November 2021 and managed by CSOP Asset Management, the CSOP iEdge S-REIT Leaders Index ETF raised S$117 million at launch. The iEdge S-REIT Leaders Index is also used by robo-advisors, such as SYFE as part of their REIT and Risk Management portfolios.
- Thematic Exposure (Technology theme): iEdge Southeast Asia+ TECH Index tracks the performance of the largest technology conglomerates and tech start-ups domiciled in Southeast Asia and Emerging Asia markets. Listed on the SGX-ST in June 2023 and Shanghai in December 2023 by CSOP Asset Management and Huatai-Pinebridge as part of the SGX Group and Shanghai Stock Exchange ETF Product Link, the ETFs have a combined AUM of S$171million as of January 2024, an increase of approximately eight-fold since inception.

On 31 January 2020, the Group acquired 93% of the interest in Scientific Beta, strengthening SGX's research-based index design capabilities and broadening the range of index products and clientele.

Established by EDHEC-Risk Institute ("**ERI Asia**"), an affiliate of EDHEC Business School, Scientific Beta is an independent index provider specialising in smart beta strategies, with expertise in factor-based and risk-managed solutions. Headquartered in Singapore with offices in Australia, Europe, the UK and the US, Scientific Beta provides investable smart beta indices to its clients, drawing on the expertise of ERI Asia in portfolio construction and risk allocation.

In April 2021, Scientific Beta announced the launch of a unique series of Climate Impact Consistent ("**CIC**") indices. The CIC indices translate companies' climate performance and alignment engagement into portfolio decisions. In June 2022, Scientific Beta announced new satellite index offerings on Trade Tension and Pandemic indices that enables investors to take tactical bets on specific risk events.

As at 31 December 2023, more than 45% of Scientific Beta's assets under replication refer to indices with an ESG or climate flavour.

Baltic Exchange

The Baltic Exchange, a wholly-owned subsidiary of the Group, is the leading independent source and provider of information for the trading and settlement of physical and derivatives shipping contracts through the production of daily indices. It enables SGX to bring together the complementary strengths of Singapore and London, both of which are leading global maritime hubs. The Baltic Exchange produces freight market indices (including dry and wet bulk, liquefied petroleum gas, container, forward curves and investor indices on a daily basis; LNG freight indices on a twice weekly basis, ship asset and recycling values and air freight indices on a weekly basis; and ship operating expense indices on a quarterly basis) that are widely used and trusted by ship owners, charterers and freight derivative traders. Certain indices reflect an independent and reliable assessment of the shipping market. The indices are used as benchmarks for the pricing and settlement of freight derivative contracts globally.

The Baltic Exchange was authorised by the UK's Financial Conduct Authority as a Benchmark Administrator for its dry bulk, tanker and gas freight indices under the Benchmark Regulation in March 2020. The authorisation gives users of its indices assurance of its strong governance, robust benchmark design and transparent methodologies.

The Baltic Exchange is a membership organisation for the global maritime industry. As at 31 December 2023, there were over 660 corporate members of the Baltic Exchange with close to 3,600 representatives. Annual membership fees vary depending on the type of membership, ranging from a sole trader to larger corporates. In addition, the Baltic Exchange receives revenue for access to its proprietary freight market information from members of the Baltic Exchange, non-member subscribers and information vendors. Fees charged are based on the level of access granted. The Baltic Exchange also generates revenue from licensing indices to clearing houses for the clearing of freight derivative contracts.

The Group continues to work with the Baltic Exchange to drive adoption and further growth in the global FFA market, develop new freight derivatives centred on active shipping routes, create new benchmarks for global and Asian shipping routes as well as expand Benchmark Administration services.

Energy Market Company

EMC was established in 2001 as a joint venture between the EMA, a statutory board under the Ministry of Trade and Industry, and M-Co (The Marketplace Company) Pte. Ltd. ("**M-Co**"), to operate the wholesale market of the National Electricity Market of Singapore ("**NEMS**"). As the exchange for wholesale electricity trading, EMC provides a transparent and competitive trading platform for the trading of electricity in Singapore. Its key activities include calculating prices, scheduling generation, clearing and settling market transactions, as well as supporting governance of the wholesale electricity market.

In August 2012, the Group acquired M-Co's 49% interest in EMC. In October 2014, the Group acquired the remaining 51% of the shares in EMC from EMA, making EMC a wholly-owned subsidiary of the Company. It was envisaged then that the acquisitions would enable the Group to integrate development with EMC's platform for an electricity futures market and related power and gas products for Singapore.

In 2020, EMC launched Renewable Energy Certificates ("**RECs**") on its PowerSelect platform, a one-stop marketplace where businesses in Singapore can competitively purchase electricity and offset their electricity consumption with RECs. In December 2021, EMC expanded RECs brokering to corporate customers to include overseas RECs, including from Malaysia, Vietnam, Philippines and China. In July 2021, EMC introduced carbon credits brokering to corporate customers, including carbon credits from Reducing Emissions from Deforestation and Forest Degradation in Developing Countries ("**REDD+**") and Japan J-Credits.

Securities Membership

There are two types of securities memberships available to market participants of the Group's Equities – Cash market - SGX-ST trading membership (such member, a "**SGX-ST Trading Member**") and CDP clearing membership (such member, a "**CDP Clearing Member**"). Market participants who choose to offer specialist equities execution-only services may apply to be a SGX-ST Trading Member. Each SGX-ST Trading Member must be qualified by a CDP Clearing Member at all times, maintain a minimum base capital of S$1 million and hold a capital markets services licence issued by the MAS if it is operating within Singapore. For SGX-ST Trading Members applying as a remote trading member that is domiciled outside of Singapore, the trading member must be appropriately licensed in its home jurisdiction, have a minimum base capital of S$1 million and comply with capital and financial requirement imposed by its home regulator.

CDP Clearing Members have clearing rights and their role is to act as third-party clearers for SGX-ST Trading Members and for themselves if they also have trading rights. CDP looks to the CDP Clearing

Members to fulfil clearing and settlement obligations. The CDP Clearing Members must maintain a minimum base capital of S$5 million and hold a capital markets services license or banking license issued by the MAS.

Market participants may opt to provide both trading and clearing services by being a member of both SGX-ST and CDP ("**Securities Trading and Clearing Member**"). Such members will need to maintain a minimum base capital of S$5 million and be authorised to offer capital market services.

As at 31 December 2023, there were 29 SGX-ST Trading Members and 25 CDP Clearing Members, of which 20 are Securities Trading and Clearing Members.

Derivatives Membership

There are three types of derivatives memberships available to market participants of the Group's Currency, Commodity and Equity Derivatives markets – SGX-DT Trading Membership (Agency) (such member, a "**SGX-DT Trading Member**"), SGX-DT Trading Membership Proprietary (such member, a "**Proprietary Trading Member**") and SGX-DC Clearing Membership (such member, a "**SGX-DC Clearing Member**").

A SGX-DT Trading Member can hold customer accounts and monies and has to clear its trades through a SGX-DC Clearing Member. SGX-DT Trading Members must have a minimum base capital of S$1 million and be authorised to offer capital markets services if they are operating within Singapore. For a SGX-DT Trading Member to apply as a remote trading member that is domiciled outside Singapore, it must be appropriately licensed in its home jurisdiction, have a minimum base capital of S$1 million and comply with capital and financial requirements imposed by its home regulator.

A Proprietary Trading Member trades solely for its own account and/or for the proprietary account(s) of its related corporations, and has to appoint a SGX-DC Clearing Member to clear its trades. Proprietary Trading Members can be based offshore, making it suitable for an overseas institution seeking remote proprietary trading. There is no licensing or capital requirements for Proprietary Trading Members as they do not hold customer accounts and monies.

SGX-DC Clearing Members clear their own trades and those of SGX-DT Trading Members. SGX-DC Clearing Members must maintain a minimum base capital of S$5 million and hold capital markets services license or banking license issued by the MAS if they are operating within Singapore. A SGX-DC Clearing Member that is located offshore must be appropriately licensed its home jurisdiction, maintain a minimum base capital of S$5 million and comply with capital and financial requirements imposed by its home regulator.

As at 31 December 2023, there were a total of 69 SGX-DT Trading Members, 29 SGX-DC Clearing Members and 112 Proprietary Trading Members.

(E) Collateral management and royalties

The following sections on collateral management, royalties and derivatives membership are applicable to the derivatives business of the Group across its various operating segments.

Collateral management

SGX-DC collects collateral in the form of cash and government securities from clearing members to meet their margin requirements. Margins represent assets held as collateral against the possibility of a clearing member defaulting on any financial obligation relating to its open derivatives contracts. The collateral also includes monies from their customers.

The Group strives to preserve capital and maintain liquidity when investing cash collateral. This is because it must be readily available on demand to meet any withdrawals by clearing members and their customers, and any potential unfulfilled obligations arising from open positions in the event of a clearing member's default. The collateral is held on trust, in favour of clearing members and customers, and is protected against the central counterparty's insolvency.

In its role as a central counterparty, SGX-DC ensures the financial performance of every cleared trade. To maintain the integrity of the clearing system, SGX-DC has established risk management processes and systems to monitor and manage the risk exposures of its members. The risk management framework employed by SGX-DC includes rigorous daily monitoring of exposures, adverse market news, responsive margining and collateralisation and stress-testing of potential losses and liquidity requirements to determine the adequacy of the clearing fund.

SGX-DC sets margin requirements at a high confidence level and collects margin from clearing members multiple times daily. To achieve a balance between robustness and efficiency of SGX-DC's margin methodology, margin reviews are conducted on a regular basis. During adverse market conditions or whenever the situation warrants, margin reviews will be performed more frequently to ensure sufficient collateralisation of risk exposures belonging to clearing members and their customers.

The Group maintains a two-level system (namely, Maintenance Margin and Initial Margin) in prescribing minimum margin requirements for clearing members and customers. Maintenance Margin represents the minimum collateral deposit that SGX-DC requires from clearing members while Initial Margin represents the minimum collateral deposit that clearing members require from their customers for newly-entered positions. Clearing members are only obligated to collect additional margins from a customer if the margin-on-deposit falls below the level of Maintenance Margin. When this happens, a margin call is issued to the customer and margin must be brought back to the level of Initial Margin.

Royalties

SGX pays royalties to index providers upon which the equity and commodity index futures contracts are based. SGX recovers the royalties paid through the trading and clearing fees charged to the clearing members.

CLIENT-FACING UNIT

GSO

SGX's operating segments are supported by and work closely with SGX's GSO unit. SGX's GSO unit is an integrated client-facing group serving all SGX clients with the full spectrum of SGX products and services across asset classes. It comprises a team of sales specialists responsible for acquiring new clients and deepening client engagement while building up SGX's multiple-asset exchange strategies.

There are three functional teams within the GSO unit: Capital Markets, Global Sales and Business Management.

Capital Markets

The Capital Markets team seeks to promote SGX as an international venue for equity and debt fundraising. It provides and enhances listing platforms and solutions and builds the capital market ecosystem through engagements with issuers, investors, intermediaries, market professionals, government agencies and trade associations. To grow SGX's listing platform beyond Asia, the team plans and executes sales strategies with global sales colleagues' support that enhance the capital market ecosystem and strengthen SGX's global network of issuers and partners. In addition, the team is also responsible for providing an integrated and holistic client coverage of all corporate and institutional investors including family offices. Key client services include corporate access roadshows, joint investor events with global intermediaries and regular investor education programmes.

Global Sales

The Global Sales teams are based in nine offices in Beijing, Chicago, Hong Kong, London, Mumbai, New York, Tokyo, Singapore and Shanghai. These teams drive SGX's overseas offices' efforts and deliverables to deliver higher revenue and sales growth for SGX's products and services across business lines and countries. Through their engagement with global clients across various countries, the Global Sales teams ensure that SGX develops a good understanding of such international clients' business while maintaining a positive presence and branding for SGX in these overseas locations. The Global Sales teams seek to continuously increase SGX's clientele base, SGX's pool of market makers and the number of derivatives and securities trading and clearing members participating in SGX's marketplace. The Global Sales teams focus on, *inter alia*, seeking potential opportunities by actively engaging clients with a targeted marketing approach and building relationships and partnerships with trading and clearing members and brokers by conducting joint marketing events in various countries.

Business management

The business management team drives business growth by developing analytical insights and business intelligence to facilitate decision-making. The team keeps track of sales activities and, together with the Global Sales and Capital Market teams, develops integrated strategies to drive revenue and market share. The team also seeks to implement tools that can enhance efficiencies for the business. Key deliverables include developing robust methodologies to cascade corporate-wide key performance indicators to the respective teams and continuously monitoring key business metrics to measure business performance. The team also handles GSO's administrative measures such as audit, procurement, risk and compliance, financial forecasting and budgeting.

RISK MANAGEMENT

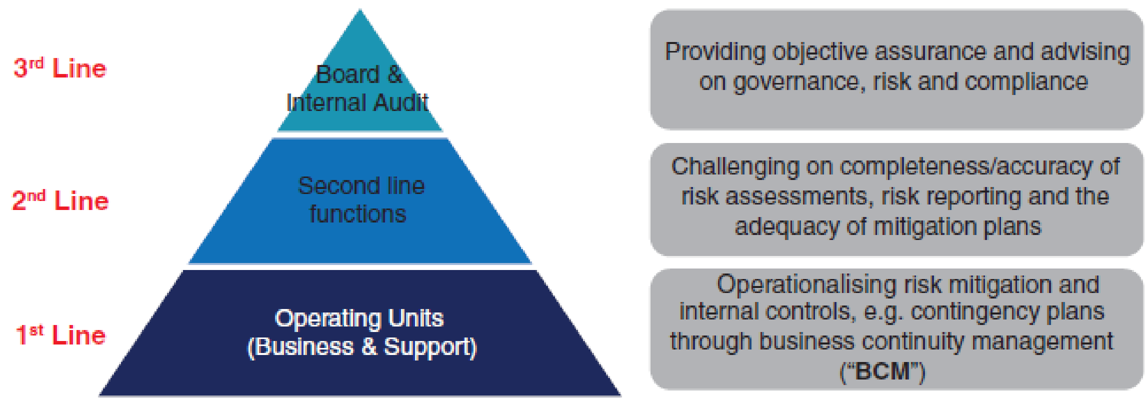
Effective risk management is integral to the Group's business strategy. As a systemically important financial market infrastructure, SGX has adopted the globally accepted PFMI developed by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, who together set global standards for securities and futures markets, and for payment, clearing and settlement. The PFMI is aimed at ensuring sound risk management and the safe and efficient operation of financial market infrastructures.

The Group's risk management unit is primarily responsible for managing the enterprise risks of the Group and more specifically the clearing risks of SGX. These include (i) developing and implementing the Group's enterprise-wide risk management framework, (ii) developing and implementing risk management strategies for all business lines, in particular clearing services offered by the clearing houses of SGX and (iii) monitoring the risk exposures and financial capability of clearing members.

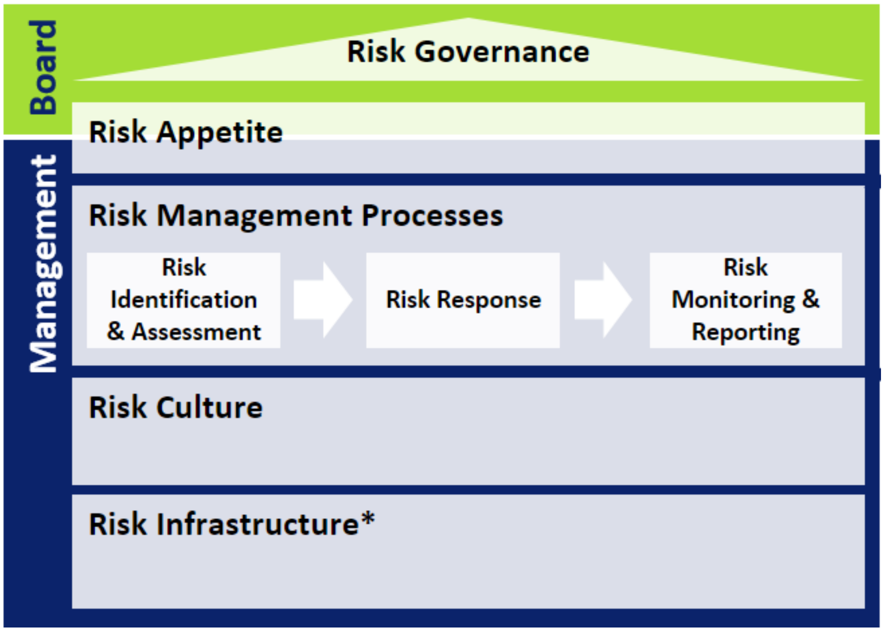
The risk management unit works together with SGX's various business and support units and subsidiaries to comprehensively manage the risks so as to support the Group's business strategy and objectives. The key risks faced by the Group are credit risks, liquidity risks, operational and technology risks, regulatory and reputational risks and emerging climate-related risks.

Enterprise risk management

The Group aligns itself to a "Three Lines of Defence" model. Roles for each line are defined for clear ownership and accountability. This is outlined as follow:



A Board-approved risk management framework drives the various risk management activities. This includes the Group's risk appetite, where business opportunities are executed within. Management plays an active part in managing the risks. Various management committees exist to govern key risks faced by the Group. This is supported by the second line of defence functions, whose responsibilities include checks on completeness/accuracy of risk assessments, risk reporting and the adequacy of mitigation plans.



The framework also outlines a structured approach to risk management, with three programmes in place for the organisation to identify, assess and manage risks faced by the Group. The first programme adopts a top-down approach, where key risks including strategic, financial, operational, compliance and regulatory risks are identified by senior management. Mitigating actions are put in place to manage these risks, and key risk indicators ("**KRIs**") are established to monitor the risks. These are reviewed and approved by the Board. The second programme, the unit-level "Risk Self Assessments", adopts a bottoms-up approach where individual units identify and manage the risks faced by their units. The third programme is a "Control Self-Assessment" ("**CSA**") programme which provides objective assurance to the CEO and the management team that key controls are operating effectively. These programmes drive continuous improvements for greater resiliency.

Credit risk

SGX is a financial market infrastructure and plays an important role in the financial stability and economic growth of Singapore. As an exchange, SGX matches buyers with sellers. As CCPs, CDP and SGX-DC become buyers to every seller and sellers to every buyer thus removing the counterparty risk exposure normally faced between a buyer and seller. SGX plays the vital role as the risk management hub, and limits contagion and the transfer of credit risk across the financial ecosystem.

Investors trade and settle SGX's products through its clearing members, who are required to meet financial obligations to the clearing house in a timely manner. SGX collects margin from its members multiple times daily to reduce credit risk. In this business model, SGX is put at risk only in the rare instance that a member defaults. Should this happen, the Clearing Houses will need to manage, transfer and close-out the open positions of the defaulted member. SGX and other members may need to absorb the losses from the resulting market risk if the collateral of the defaulting member is insufficient.

SGX has established layers of defences to safeguard the Clearing Houses against clearing members' credit risk. Members are screened at admission to make sure they meet stringent credit and financial requirements such as minimum base capital, credit rating and capital ratios. Their credit standing, financial adequacy and internal risk management capability that span across operational, business continuity, technology and liquidity risks are reviewed regularly as part of ongoing supervision.

In addition, active monitoring of clearing members' positions and acute awareness of market conditions and macro events enable SGX to take pre-emptive mitigating actions appropriately. This ensures that risk does not concentrate on any particular member and remains manageable. SGX regularly monitors margin requirements for trade exposures and margins are collected promptly. A robust and well-established default management protocol is set up to ensure that in the rare event of a member default, trades belonging to the defaulted member can be managed in a timely and orderly fashion. This preserves market continuity and limits any market risk fallout and systemic impact. Further, to protect investors in a default, customer monies are segregated and held in trust.

The increased use of data analytics and process automation have also improved SGX's agility and responsiveness to changing market conditions.

SGX and its members contribute resources to a default fund that SGX believes is adequate to withstand multiple member defaults. The default funds are stress tested to cover multiple extreme and plausible scenarios.

SGX is committed to the safety of the Singapore financial market, and as a result, contributes at least 25% of the default fund using its own capital. It is one of the highest "skin in the game" among global clearing houses. In addition, SGX has enhanced its stress testing frameworks and margin frameworks to bolster adequacy of resources in the event of a member default. In an increasingly unpredictable environment, new stress scenarios are constantly added to capture broader range of tail-risks and bolster preparedness to deal with crisis events. These include forward-looking hypothetical stress scenarios developed in consultation with market participants represented on SGX's Risk Advisory Committee.

A robust default management protocol is also set up to liquidate a defaulter's portfolio promptly in order to effectively respond and manage fallout in the rare event of a member default and can preserve market continuity for others. Regular default management exercises with appointed liquidating brokers and clearing members are conducted to familiarise and enable a speedy resolution and reduce contagion risks within the ecosystem. Further, to protect investors in a default, customer monies are segregated and held in trust. SGX has also implemented auction tools for the derivatives market to strengthen default management capabilities.

Liquidity risk

In the event of a clearing member default, SGX may need liquidity to meet its settlement obligations to other non-defaulting clearing members. This is because it will no longer receive payments from the defaulted clearing member. In addition, the CCPs use commercial banks in facilitating day-to-day settlement of obligations and safekeeping of clearing members and customer margin monies. A counterparty default of such a commercial bank will also expose the Group to liquidity risks.

SGX sets aside resources to cover its liquidity risks. To provide sufficient headroom, SGX conducts regular liquidity stress testing, which simulates a variety of hypothetical default scenarios under severe stress conditions involving members and commercial banks. This practice ensures that even under such extreme but plausible scenarios, SGX will have sufficient cash resources and credit lines.

Further, SGX actively manages counterparty risk exposure to commercial banks by using only financially strong banks and monitoring their credit quality regularly. SGX sets limits to manage maximum exposure to each bank and ensures that it has sufficient standby liquidity lines from other banks.

In securities clearing, the move to a T+2 multiple settlement cycles and the use of Central Bank payment systems for SGD money settlement instead of commercial banks have significantly reduced settlement and liquidity risks in the market. Margins are collected on the same day to further reduce settlement risk.

In derivatives clearing, an enhanced margin methodology has been introduced to meet more prescriptive regulatory requirements. SGX-DC has achieved more responsive risk-coverage to safeguard the clearing house. Settlement risk is also greatly reduced with same-day monies collection for intra-day margin calls.

Operational and technology risk

As a financial market infrastructure, operational resilience of SGX's business functions is critical in ensuring business continuity. SGX's business continuity may be impacted by technology, financial, physical security and pandemic disruptions. SGX regularly reviews the state of its business operational resiliency to be prepared for any contingencies which could impact the operation of a fair, orderly, transparent and efficient marketplace. Adequate measures are also put in place to detect and mitigate impacts on a timely manner.

In the aftermath of COVID-19, SGX continued to build on its operational resiliency through hybrid work arrangements and regular business continuity exercises within the organisation and with its members. SGX continually drilled its remote crisis management capabilities over various scenarios, reviewed its physical security readiness and maintained preparedness of its pandemic management measures.

Across the Group, its management team continuously enhances the business continuity management framework. Risk governance processes are reviewed to ensure a consistent risk management approach across the Group and to facilitate effective oversight by the Group's management. Engagement with the newer subsidiaries was increased to support their alignment with SGX's standards, and to enhance their operational resiliency.

As SGX embraces new technologies and introduces new ways of connecting with its customers and staff, it remains committed in preventing market disruptions caused by technology outages and upholding a robust and secure information security environment.

SGX's technology risk management practices aim to identify potential risks before they occur and implement work plans to address those risks timely, for example, learning from near misses within SGX as well as incidents impacting other exchanges and participants in the industry.

With regard to cyber security risk management, SGX is progressing to a risk-based approach with a systematic method that identifies, evaluates, and prioritises threats faced by SGX to tailor its cybersecurity programme to specific business needs and operational vulnerabilities.

SGX looks at both internal and external risks that can impact its businesses. SGX's monitoring and detecting environment operates round-the-clock providing information discovery along with exploration and visualisation capabilities in a single pane of glass. SGX's protecting and defending environment embeds Security-By-Design principles of 'Assume Breach', 'Zero Trust' and 'Layered Defense'.

To enhance readiness for unexpected events, SGX places an emphasis on technology and cyber risk awareness. SGX's website has a cybersecurity page that provides advisory to the public on scams, phishing, and fraudulent websites. SGX periodically conducts brown-bags, workshops, tabletop exercises and phishing tests involving the staff and senior management of SGX. SGX runs cyber drills and data recovery exercises with industry participants as market operational resilience is key to SGX in its role as a market infrastructure operator.

Additionally, SGX conducts multiple cycles of Disaster Recovery ("**DR**") testing with its customers in its most comprehensive form by simulating IT failures to assess whether its DR plans are up-to-date and effective. Baseline policies and processes have also been established for subsidiaries to 'adopt' or 'adapt' to ensure technology and cyber risks are escalated and managed adequately. The Group's management has been implementing these standards and is committed to ensure adequate management of risks across the Group.

As a financial market infrastructure, SGX also collects, uses and stores various information that is confidential in nature. SGX has a comprehensive regime for safeguarding confidential information. These include policies and processes on the processing, security, and breach notification and reporting of such confidential information. Control measures includes encrypting emails containing confidential information when they are sent to external parties and uplifting SGX's data loss prevention programme to identify and prevent accidental or unauthorised disclosure of confidential information when they are sent to external parties.

SGX utilises vendors for services in various areas which expose SGX to risks arising from failure of a vendor in providing the service, breaches in security, or the vendor's inability to comply with legal and regulatory requirements. In this regard, SGX has a robust outsourcing framework which governs the evaluation of risks, due diligence assessments, on-going monitoring and management of vendors. In particular, the outsourcing framework applicable to the MAS-regulated subsidiaries of SGX is aligned with the MAS Outsourcing Guidelines and ensures that there is adequate governance over the outsourced vendors of such subsidiaries.

Regulatory risks and reputation risks

As a frontline regulator of SGX's markets, SGX RegCo has to maintain high standards of supervision and ensure adherence to regulation. A loss in confidence in the quality of SGX's markets could have a serious impact on the competitiveness of SGX. SGX RegCo strives to ensure a fair, orderly, transparent and efficient marketplace by maintaining high regulatory standards in the oversight of listed companies and member firms.

SGX-ST's admission and listing requirements are continuously refreshed to remain relevant to market needs and to address new risks arising from the introduction of new listing structures which evolves with investors' preferences and changes in the business landscape and global environment. SGX-ST's listing criteria are benchmarked against comparable and established jurisdictions and adapted to the local market conditions.

SGX invests in upgrades to its real-time market surveillance system to allow it to more accurately detect trading irregularities and more complex types of misconduct such as layering and spoofing. Where appropriate, SGX RegCo issues detailed and targeted "Trade with Caution" alerts to investors.

In operating a disclosure-based regime, SGX RegCo recognises the importance of communicating clear expectations on timely and accurate disclosures to market participants and shareholders' evolving needs, as it is key to maintaining trust in and increasing the quality of SGX's markets.

In FY2023, SGX RegCo introduced a hard cap of nine years to the tenure of the independent directors of listed companies and enhanced remuneration disclosure requirements for directors and CEOs, as part of continuing efforts to enhance corporate governance standards in the market. As Singapore progressively transitioned towards living with COVID-19, SGX RegCo called on listed companies to make preparations for physical general meetings, while also providing further guidance on the conduct of general meetings, including through hybrid formats. To drive SGX's regulatory efforts in sustainability, including in sustainability reporting, SGX RegCo established a dedicated Sustainable Development Office.

In addition, SGX RegCo regularly publishes its regulatory philosophy, listing decisions, waivers, regulatory expectations on corporate governance and compliance with listing rules and enforcement actions. SGX RegCo's communication is made through various means including Regulator's Columns, enforcement statistics, public consultations, and stakeholder engagement events. Where necessary, SGX RegCo will diligently exercise its administrative powers for listed companies and product issuers to address breaches of the listing rules. SGX RegCo similarly expects market participants and professionals to maintain high standards in their actions. Through collaborations with key stakeholders, including professional bodies, SGX RegCo provides industry guidance on best practices, promoting a well-educated and informed market.

Climate-related risks

The Group has embarked on a roadmap to align and adopt its climate-related disclosures with TCFD recommendations since FY2021 which provided the Group with a better understanding of its climate-related risks and opportunities to enable informed strategic decisions. In FY2023, aside from reviewing and updating the Group's risks in response to developments in the past year, the Group has also started developing its climate scenario analysis capabilities, to understand the resilience of its strategies to climate-related risks.

With regard to transition risks that may arise from policy, legal, technology and market changes to address climate mitigation and adaptation, the Group has been actively engaging its stakeholders and introduced regulations, products and services to support the global transition to a low-carbon economy. Aside from the impact on the Group's products and services, there is also increased focus, by financial authorities, on addressing greenwashing concerns. The Group is actively participating in industry efforts locally to mitigate greenwashing risks through improving frameworks and investor understanding of ESG-focused investing.

With regard to physical risks that may arise from extreme weather events or longer-term shifts in weather patterns and result in operational disruptions and physical damage to assets, while the Group does not hold significant real assets within its portfolio and thus have minimal exposure to such physical risks, the Group recognises that climate events such as heatwaves and flash floods may potentially disrupt its operations. The Group will continue to review such weather trends and research and update its assessment and response to such risks.

The Group will continue to monitor and review its climate-related risks and opportunities and work towards quantifying the financial impact of climate risks to enable informed strategic decisions.

EMPLOYEES

As at 31 December 2023, the Group had 1,210 permanent, contract and temporary employees. Of the total number of employees, 75% were based in Singapore and 25% were based outside of Singapore. As at 31 December 2023, 23 employees (approximately 2%) of the Group's employees were members of the Singapore Manual & Mercantile Workers' Union.

Talent management

The Group invests in a holistic talent strategy to build internal capabilities and talent pool. Through regular employee engagement activities, the Group strives to foster employee commitment by improving employee benefits and overall welfare in the organisation. The Group supports its employees in balancing their professional life with domestic responsibilities by providing flexible working arrangements such as part time schedule and flexible working schemes for female staff after childbirth.

Staff development

The Group subscribes to the policy of lifelong learning to encourage employees to further their potential, while equipping them with skills and knowledge that go beyond the required expertise of their current role. Structured programmes are in place to support learning and development and cultivate a learning culture. The Group provides employees with a variety of training, professional memberships, continuing education schemes, study leave and internal job rotation opportunities. The professional learning and development of the Group's employees are further supplemented by programmes to nurture soft skills and other transferable expertise.

Compensation philosophy and components

The Group adopts a compensation philosophy that is directed towards the attraction, retention and motivation of talent to achieve its business vision and strategic priorities and create sustainable value for its shareholders. Pay-for-performance is emphasised by linking total compensation to the achievement of organisational and individual performance objectives, taking into consideration relevant regulatory standards and comparative compensation against other local and regional financial institutions to maintain competitiveness.

Total compensation comprises fixed compensation and variable compensation, which could be paid in the form of cash-based short-term incentives and cash or share-based long-term incentives. The award of variable compensation is managed through a process where due consideration is given to the relevant comparative remuneration in the market, the corporate and individual performance across broad categories of goals, namely, financial, product and services, stakeholders' trust, operational excellence and people and culture as well as employees' demonstration of SGX values – *Trust, Passion and Service.*

Diversity and inclusion

The Group embraces diversity within its workforce. The Group recognises that diversity in the workplace broadens the depth and breadth of the Group's collective skills and perspectives. Cultivating a diverse and collaborative environment that drives innovation is thus a priority for the Group. The Group hires based on merit and provides a competitive and fair compensation and benefits package with equal pay for equal work, engendered by a non-discrimination policy. This allows the Group to leverage on gender, age and cultural diversity to drive growth and maximise the Group's full potential. The talent strategy also emphasises equal opportunity in a non-discriminatory work environment. 33% of the Board is represented by female directors, which contributes to the diversity of views and perspectives at the senior level. As at 31 December 2023, the Group has one reported incident of discrimination at SGX.

COMPETITION

The Group currently operates the only approved securities exchange and clearing house and depository for securities in Singapore. Consequently, the Group does not face any direct competition in its capacity as operator of the securities market in Singapore. Beyond Singapore, the Group competes with other regional exchanges for listing applicants and investors. In the case of investors in securities, competition for investors is driven by a range of factors, including the relevance and attractiveness of securities listed on the SGX-ST, and economic prospects for Singapore and Asia that influence the growth of these listed business. Although these are factors beyond the Group's control, the Group seeks to attract investors by maintaining its standards as a trusted marketplace, aligning its practices and those of the entities listed on the SGX-ST with international standards and best practices.

The Group's derivatives business is more open to competition. In Singapore, there are three other approved clearing houses for derivatives. Beyond Singapore, the Group competes primarily with global and regional exchanges.

The Group continues to focus on the development of a pan-Asian suite of products and services covering all major Asian economies and distribution. The Group also continues its efforts on enhancing its trading and clearing platforms to ensure competitive functionalities.

The Group's high standards of risk management and well-capitalised clearing houses meet high global regulatory standards. Apart from that, the Group focuses on enhancing operational resilience, while simultaneously seeking to future-proof core technology and infrastructure for the long term by making appropriate investments.

In the near to medium term, the Group remains confident that the Group competes favourably against existing and potential competitors, on the Group's strength as a diversified business, a platform for capital raising, and unique value proposition as the only exchange offering single-point access into key Asian markets.

INTELLECTUAL PROPERTY

The Group further relies on a combination of trademarks, service marks, copyright protection and contractual restrictions to establish and protect its brand names and logos, and its intellectual property works eligible for copyright.

The Group owns or has licensed rights to trademarks, domain names and copyright that it uses in conjunction with its operations and services:

- *Trademarks* – the Group's most significant brand names and logo, namely, "Singapore Exchange", "SGX", the SGX logo, SGX composite mark, SIMEX, the SIMEX Logo, SICOM, "新加坡交易所", "新交所", "AsiaClear", "Catalist", "Scientific Beta", "Scientific β", "Energy Market Company", "PowerSelect", "The Baltic Exchange" and "BIDFX" have been registered (or are in the process of being registered) as its trademark in their relevant jurisdictions including Singapore, Australia, China, Hong Kong, Indonesia, India, Japan, Malaysia, South Korea, Taiwan, the U.S. and Europe;

- *Domain names* – the main domain names registered in the name of the Group are sgxgroup.com, sgx.com, sgx.com.sg, sgx.sg and sgxacademy.com; and

- *Copyright* – the Group's copyright relates principally to publications on the SGX's website and all other print media, real-time and historical market information and the commercial use of such information.

As the Group's business is heavily dependent on information technology, it relies on a large amount of licensed software. Among these, the key licences that are or that will be relied on by the Group include the software licences from Nasdaq. The Group also relies on licensed benchmarks and indices for various products traded and cleared on its exchanges and trading houses.

INSURANCE

The Group maintains insurance policies, which provide coverage for professional indemnity and crime, directors and officers liability, cyber risk, property damage and business interruption, general liability and terrorism. In addition, the Group maintains term life, health and personal accident, work-related injury and business travel policies for its employees.

The Group conducts periodic reviews of the adequacy of its insurance coverage and if necessary, recommends any changes to its insurance programme, taking into account developments in the insurance market.".

REGULATION

The section titled "Regulation" on pages 209 to 218 of the Original Offering Circular shall be deleted in its entirety and replaced by the following:

"SGX as a Market Regulator

The Group has regulatory responsibilities, regulating market participants including listed companies and trading and clearing members. SGX is also a listed, for-profit entity with a widely distributed ownership base. The Group is committed to employing high standards in carrying out its dual role and ensuring that any potential conflicts between its responsibilities as a regulator and as a listed company are adequately addressed.

In April 2017, SGX RegCo was incorporated as an independently governed subsidiary, to discharge all frontline regulatory functions on behalf of the Group. SGX RegCo commenced operations in September 2017. This move further enhances the governance of SGX as a self-regulatory organisation by making the segregation of SGX's regulatory functions from its commercial and operating activities more explicit. As the frontline regulator for the Exchanges and Clearing Houses that the Group operates in Singapore, SGX RegCo works closely with the relevant regulatory authorities including the MAS and the Commercial Affairs Department ("**CAD**") to develop and enforce rules and regulations with a view to building a fair, orderly and transparent marketplace.

Key regulatory principles

In conducting its regulation of the participants of Exchanges and the Clearing Houses, the Group has adopted six guiding principles. The first three principles relate to how the Group targets what it regulates, while the next three principles relate to how it devises its rules and conducts its regulatory activities.

Guiding principle one: Disclosure-based regulation

The Group believes that market users should have a wide range of choices and that the decision whether a particular security or product is suitable for an investor is largely a matter for the market users and their advisers. For this principle to work, it is necessary for the market to be provided with timely, accurate, and adequate disclosure of all matters needed to make informed decisions about listed issuers and listed products. Hence, SGX RegCo focuses on facilitating fair access to information for all market users as the fundamental building block for achieving a fair, orderly, and transparent market.

The Group recognises nonetheless that disclosure of information alone will not be sufficient. Accordingly, SGX RegCo seeks to ensure that the disclosure-based regulation regime is supplemented by high baseline standards to determine whether a particular type of listing or product is suitable for the various segments of the market.

Guiding principle two: Comprehensive risk management

Market users need absolute certainty that their trades can be finalised. Any breakdown in the post trade activities of clearing and settlement may result in a loss of confidence and may effectively bring the market to a halt. Consequently, the Group and SGX RegCo place a high level of regulatory attention on the safe and efficient operation of the Exchanges and Clearing Houses. Regulatory measures that SGX RegCo has in place include robust member admission reviews, close supervision of trading and clearing activities, and policies to cater for market contingencies.

Guiding principle three: Risk-based approach of regulatory activities

The Group adopts a pragmatic risk-based approach in order to ensure that regulatory resources are optimally allocated. Supervisory activities focused on principles one and two are tailored according to risk profiles that SGX RegCo develops for issuers, sponsors and members. For example, risk profiles for issuers, sponsors and members are based on SGX RegCo's assessment of the transactions they undertake, the risks inherent in their business models and products, their management systems and the responsibilities of their management to provide proper risk oversight of their business activities. SGX RegCo then allocates resources to those matters that it considers as posing the greatest risks to achieving a fair, orderly and transparent market, and safe and efficient clearing outcomes.

Guiding principle four: Balanced approach to international best practice

The Group aims to ensure that its rules and regulatory activities are consistent with international best practice for exchanges and clearing houses. At the same time, in pursuing regulatory outcomes, the Group seeks to strike an appropriate balance between internationally recognised practices and local needs and conditions. The Group has adopted the PFMI issued by the Committee on Payment and Settlement Systems ("**CPSS**") and the IOSCO.

Guiding principle five: Transparency

The Group seeks to be open and transparent in all its regulatory operations to the extent consistent with its statutory obligations and the public interest. In addition to statutorily mandated public consultations on business rule amendments, SGX RegCo consults market users, where appropriate, on the proposed introduction of new products and initiatives. Further, SGX RegCo's website publishes feedback received from market users on the public consultations, has a public register of listing rule waivers, and publishes the decisions and/or advice by the Listings Advisory Committee, Disciplinary Committee and Appeals Committee.

Guiding principle six: SGX as a frontline regulator and managing regulatory conflict

The Group has a dual role as a market regulator and a commercial company. Accordingly, there is potential for conflict between its commercial interests and its duty to maintain high standards as the operator, and regulator of the participants of, the Exchanges and Clearing Houses. However, the Group believes there is an alignment of its dual role because maintaining the trust of market participants is the foundation of its business. Further, the Group has in place a robust governance framework for managing any perceived or actual self-regulatory organisation conflicts ("**Regulatory Conflicts**").

Regulatory conflicts governance framework

The Group has a strong Regulatory Conflicts governance framework in place to manage potential, perceived or actual Regulatory Conflicts. The framework consists of both legislative obligations and rigorous self-imposed standards, which prevents regulatory decision-making from being compromised by the Group's commercial (or financial) objectives.

In April 2017, to further enhance the Group's existing self-regulatory organisation structure, SGX RegCo was incorporated. SGX RegCo also has the authority to require action to be taken by the regulated subsidiaries in respect of all regulatory matters. SGX RegCo does not pursue any for profit objectives that are linked to the business activities of SGX and its group of companies. SGX RegCo commenced operations in September 2017.

Each unit in the Group is subject to the Group's Regulatory Conflicts Code (the "**Conflicts Code**"), and Regulatory Conflicts Guidelines (the "**Conflicts Guidelines**") relevant to the units' area of responsibility. The Conflicts Code and the Conflicts Guidelines set out the processes for escalation and resolution of all actual and perceived Regulatory Conflicts and in particular, regulatory decisions involving collaborators and competitors. Further, the Group has in place an information barrier policy restricting, among other things, the flow of confidential information between SGX RegCo and the rest of the operating divisions within the Group.

SGX also conducts an annual compliance review of Regulatory Conflicts, of share dealing by employees and employee training on the management of Regulatory Conflicts.

Oversight of SGX RegCo by independent board

SGX and its regulated subsidiaries have given SGX RegCo the authority to discharge their regulatory obligations and must ensure that SGX RegCo is provided with adequate budget, resources and assistance as may be required to discharge its functions.

To maintain the independence of the SGX RegCo Board, the majority of the SGX RegCo Board, including the chairman, comprises directors independent from the Group. All SGX RegCo directors and the SGX RegCo chief executive officer, are also independent from any other entities listed on the SGX-ST and the trading and clearing members of the Exchanges and Clearing Houses. SGX RegCo's chairman and directors are approved by the MAS and the SGX RegCo Board reports to the MAS and the Board on the discharge of its duties annually. Further, the chief executive officer of SGX RegCo reports exclusively to the SGX RegCo Board in relation to the performance of the functions of SGX RegCo. This direct line of reporting further strengthens the independence of SGX RegCo.

SGX RegCo is accountable to the Board for, *inter alia*, formulating and maintaining arrangements and processes within the Group for managing Regulatory Conflicts. The SGX RegCo Board is responsible for ensuring that SGX RegCo exercises its judgement independently of the business functions of SGX and its regulated subsidiaries in the performance of its regulatory duties. The SGX RegCo Board has the responsibility to deal with any potential, perceived or actual conflict between the Group's regulatory responsibilities and commercial interests. Under the Regulatory Conflicts governance framework, any Regulatory Conflict that is escalated to the SGX RegCo Board and the Board must be resolved by agreement between both boards, thereby ensuring that commercial objectives do not compromise regulatory responsibilities.

Oversight by MAS

MAS is the statutory regulator and regulates the Group in the discharge of its regulatory functions and its management of regulatory conflicts. MAS approves the Chairman, chief executive officer and directors of the Board, as well as those of SGX RegCo. The SFA further empowers MAS to remove officers who have wilfully contravened or failed to ensure the Group's compliance with the SFA.

The Group, including SGX RegCo, maintains a continuous dialogue with market users. This market proximity improves the Group's and SGX RegCo's understanding of the businesses of market users and the compliance issues they face, enabling SGX RegCo to more appropriately and effectively calibrate regulatory solutions and enforcement actions.

In addition, SGX RegCo maintains a close collaborative relationship with other regulatory and enforcement agencies such as the MAS, CAD and the Accounting and Corporate Regulatory Authority on matters such as regulatory policies, risk management, regulatory oversight, and enforcement actions.

Transparent to the public

The Group believes that transparency regarding regulatory actions and decisions, such as disciplinary actions taken by the Disciplinary Committee, public consultations and grant of waivers on the listing rules of the Mainboard ("**Mainboard Rules**") or, as the case may be, the listing rules of Catalist ("**Catalist Rules**" and together with Mainboard Rules, the "**SGX Listing Rules**"), increases its accountability. Such transparency also acts as a check on Regulatory Conflicts in regulatory decision-making.

Regulatory functions

IPO Admissions

The IPO Admissions team is responsible for reviewing and processing applications to list on the Mainboard or Catalist of the SGX-ST. The team also undertakes the accreditation of issue managers, the authorisation of full sponsors and the registration of registered professionals who are responsible for preparing issuers for listing on the SGX-ST. Should any issue manager, full sponsor or registered professional breach the SGX Listing Rules, the IPO Admissions team can take disciplinary action against the relevant issue manager, full sponsor or registered professional or refer the case to the independent Disciplinary Committee for their consideration and further action.

Listing Compliance

Save for SGX itself, which is directly regulated by the MAS as a Mainboard listed company, the Listing Compliance team regulates issuers listed on the Mainboard and Catalist in terms of their compliance with the listing rules and their continuing disclosure requirements in support of high standards of corporate governance and transparency. The team also enforces the SGX Listing Rules where breaches of the SGX Listing Rules are established. Disciplinary actions that SGX RegCo can take include the imposition of composition sums and issuance of private warning letters and public reprimands for breaches of the Mainboard Rules and Catalist Rules. Serious breaches are referred to the Listings Disciplinary Committee for its consideration. The sanctions that the Listings Disciplinary Committee may impose include the imposition of fines of up to S$1,000,000 for listed issuers and sponsors, and the imposition of fines of up to S$500,000 for registered professionals.

Surveillance

The Surveillance team monitors price movements and trading volumes in the securities and derivatives markets for unusual activities. The team may issue a public query to an issuer if a substantial change in price and/or volume of the issuer's security warrants it. If necessary, the team may also issue a "Trade with Caution" alert to the market to provide the market with information gathered from the Surveillance team's investigative activities. Any suspected breach of the SFA will be referred to the MAS and/or CAD for their investigation and appropriate action.

Member Supervision

The Member Supervision team is responsible for admitting and monitoring members and trading representatives in terms of their compliance with the SGX Trading Rules and the SGX-DC and CDP Clearing Rules (collectively, the "**SGX Clearing Rules**" and together with the SGX Listing Rules and SGX Trading Rules, the "**SGX Rules**"). The team ensures that only suitably qualified participants who meet certain eligibility criteria are admitted as members and trading representatives. Further, the team monitors the financial health of members on a regular basis to ensure they have adequate capital for their operations.

Regulatory Development and Policy

The Regulatory Development and Policy team provides regulatory and legal support within the Group by providing input for Group initiatives as well as crafting regulatory solutions and policies. As part of that process, the team conducts public and closed consultations on proposed rule amendments and initiatives that will have an impact on the market, and is responsible for making regulatory submissions to MAS. The Regulatory Development and Policy team is also responsible for maintaining Regulatory Conflicts instruments and raising the Group's organisational awareness of Regulatory Conflicts. Further, the Regulatory Development and Policy team also monitors regulatory developments internationally and engages with foreign regulatory bodies, including responding to consultations issued by such entities.

Listing Policy and Product Admission

The Listing Policy and Product Admission team develops regulatory listing policies and manages the SGX Listing Rules. The team responds to public consultations relating to listing policies conducted by public authorities and international organisations. The team is also responsible for reviewing and approving new listing applications for debt securities, exchange-traded funds, structured warrants, structured certificates and daily leverage certificates listed on SGX-ST.

Enforcement

The Enforcement team is responsible for investigating suspected infractions of the SGX Rules as well as enforcing the SGX Rules by taking appropriate disciplinary actions for violations. The team may take direct enforcement action, or institute disciplinary proceedings before the Disciplinary Committee for serious breaches which warrant the imposition of more severe and pecuniary sanctions such as fines.

Whistleblowing Office

The Whistleblowing Office is the primary department for receipt, assessment and management of whistleblowing allegations and handles all external communications with the whistleblowers.

Strategic Planning Office

The Strategic Planning Office identifies and prioritises strategic areas of focus for SGX RegCo, and conducts horizon scanning to help in the development of regulatory responses to changes in the operating environment. It also plans and coordinates SGX RegCo's corporate projects.

Sustainable Development Office

The Sustainable Development Office coordinates regulatory efforts to promote the availability of corporate sustainability disclosures to investors and other stakeholders in a comparable and trusted manner, and implements initiatives to advance the sustainability performance of listed issuers. The team also participates in standards-setting projects and builds awareness and capability within the ecosystem.

Independent Committees

SGX's framework to deal with potential conflicts of interest arising from its dual role as a front-line regulator of the market and a listed for-profit entity includes the establishment of independent committees comprising the Listings Advisory Committee, the Disciplinary Committee and the Appeals Committee within SGX RegCo's regulatory and disciplinary processes.

To ensure impartial and independent administration of their powers, the members of these independent committees are not, and have not been for the three years preceding their appointment, directors, officers or employees of SGX or its related corporations. The independent committees are supported by a secretariat which manages the independent committees' proceedings. The head of the secretariat reports directly to the chairmen of the respective committees.

The operation of the independent committees and the secretariat is funded separately by a compliance fund which is segregated from the rest of the Group's monies. The compliance fund comprises an annual earmarked amount received from listing revenue.

Listings Advisory Committee

The Listings Advisory Committee provides advice on the Group's listing policies and Mainboard listing applications which involve novel or unprecedented issues, or where specialist expertise is required, or which involve matters of public interest or when SGX is of the view that a referral is appropriate. Matters referred to the Listings Advisory Committee can either be referred by SGX RegCo or the Listings Advisory Committee Chairman or Deputy Chairman if they determine that any of the referral criteria is met. The advice provided by the Listings Advisory Committee is published by SGX RegCo semi-annually, and by the Listings Advisory Committee annually.

The Listings Advisory Committee's terms of reference are set out in the SGX Listing Rules and its role is advisory in nature. SGX RegCo may adopt listing policies or make listing decisions in accordance with the Listings Advisory Committee's advice, or disagree with the advice. The Group remains at all times responsible for its listing policies and listing decisions.

As at the date of this Supplemental Offering Circular, the Listings Advisory Committee has 17 members and comprises market practitioners with legal, accounting, and corporate finance experience, as well as representatives of the investment community.

Disciplinary Committee and Appeals Committee

The Disciplinary and Appeals Committees provide independent and transparent adjudication of breaches of SGX Rules. On 7 October 2015, the Listings Disciplinary Committee and Listings Appeals Committee were established in conjunction with the strengthening of the range of enforcement actions which can be taken for breaches of SGX Listing Rules, with the aim to improve the governance and compliance standards of the listing space. Members of the Listings Disciplinary Committee and Listings Appeals Committee are drawn from the Disciplinary Committee and Appeals Committee, respectively.

As at the date of this Supplemental Offering Circular, the Disciplinary Committee comprises 19 members and the Appeals Committee comprises 20 members. These members have legal, accounting, corporate finance and market experience as well as directorship experience in SGX-listed issuers. The members of the Disciplinary Committee and Appeals Committee participate in their personal capacities and do not represent their respective organisations.

Disciplinary Committee

The Disciplinary Committee hears charges brought by SGX RegCo against persons who are alleged to have violated any SGX Trading Rules and SGX Clearing Rules or SGX Listing Rules ("**Relevant Persons**"). Such Relevant Persons include (i) a trading or clearing member, any of the member's directors, trading representatives, approved traders or registered representatives, (ii) listed issuers or their directors or executive officers, (iii) issue managers, (iv) sponsors and (v) registered professionals.

If the Disciplinary Committee decides that the charges brought by SGX RegCo have been established, it will decide on the appropriate sanction. Sanctions that may apply to breaches of the SGX Trading Rules and SGX Clearing Rules include reprimands, fines, restrictions or conditions on activities, suspensions, expulsions, requiring such Relevant Persons to undertake an education or compliance program, requiring directors to step down from day-to-day conduct of the business affairs of a member, requiring reimbursement or compensation to be paid and confirming, appointing or discharging the appointment of a manager by such Relevant Persons.

Sanctions that may apply to breaches of the SGX Listing Rules include private warnings, public reprimands, requiring an issuer to appoint independent professionals or independent advisers for specified purposes, requiring an issuer to implement an effective education or compliance program, requiring an issuer to undertake an independent review of internal controls and processes, requiring an issuer to perform remedial actions, prohibiting an issuer from accessing facilities of the market for a specified period, imposing conditions on activities undertaken by an issuer, issuing fines against an issuer, sponsor or registered professional, suspension of an issuer's securities for a specified period, removing an issuer from the Official List of the SGX-ST, requiring a director, executive officer, sponsor or registered professional to undertake an education program, requiring the resignation of a director or executive officer, prohibiting the appointment or reappointment of a director or executive officer for a period not exceeding three years, suspending or restricting the activities of an issue manager, sponsor or registered professional, imposing conditions on or revoking or cancelling the accreditation of an issue manager, and prohibiting an issue manager from participating in any specific listing applications for a period not exceeding three years.

Appeals Committee

A Relevant Person or SGX RegCo may appeal to the Appeals Committee against the decision of the Disciplinary Committee. A Relevant Person may also appeal against certain decisions of SGX RegCo made under the SGX Listing Rules. The decision of the Appeals Committee is final.

Publications

The decisions of the Disciplinary Committee or Appeals Committee will be published on the SGX website, unless a private warning is involved. Where a private warning is involved, the Disciplinary Committee or Appeals Committee, as the case may be, will determine whether the grounds of decision is to be published.

MAS as SGX's Statutory Regulator

The principal regulator of Singapore's securities and futures markets is the MAS and the primary piece of legislation that regulates Singapore's securities and futures markets is the SFA.

As at the date of this Supplemental Offering Circular, SGX is an approved holding company under Section 81W of the SFA, each of the SGX-ST and the SGX-DT is an approved exchange under Section 8 of the SFA, each of CDP and the SGX-DC is an approved clearing house under Section 51 of the SFA, and SGX FX Markets Pte. Ltd. ("**SGX-FX**") and SGX Bond Trading Pte. Ltd. ("**SGX-BT**") are each a recognised market operator under Section 8 of the SFA.

Duties

Approved exchanges

Division 2 of Part 2 of the SFA governs approved exchanges. As an approved exchange, each of the Exchanges, namely SGX-ST and SGX-DT, must, among others (i) as far as is reasonably practicable, ensure that the organised market it operates is a fair, orderly and transparent organised market, (ii) manage any risks associated with its business and operations prudently, (iii) in discharging its obligations under the SFA, not act contrary to the interests of the public, having particular regard to the interests of the investing public, and (iv) have sufficient financial, human and system resources to (a) operate a fair, orderly and transparent organised market, (b) meet contingencies or disasters (including technical disruptions occurring within automated systems), and (c) provide adequate security arrangements.

In addition, the Exchanges each have a duty under the SFA to (1) ensure that access for participation in its facilities is subject to criteria that are (A) fair and objective and (B) are designed to ensure the orderly functioning of the organised market that it operates and to protect the interests of the investing public, (2) maintain business rules and, where appropriate, listing rules that make satisfactory provision for (A) the organised market to be operated in a fair, orderly and transparent manner, and (B) the proper regulation and supervision of its members; and (3) enforce compliance with its business rules and, where appropriate, its listing rules. Further, the Exchanges must, in respect of any relevant product that is listed or permitted for trading on any organised market operated by it comply with requirements prescribed by regulations made Section 44 of the SFA or specified in directions issued under Section 45 of the SFA relating to, *inter alia*, the limits that the Exchanges must establish on the number of open positions that may be held by any participant in respect of the relevant product and the steps that the Exchanges must take to ensure compliance with such limits.

The Exchanges also have an obligation to manage risks prudently including, *inter alia*, ensuring that the systems and controls concerning the assessment and management of risks to every organised market that it operates are adequate and appropriate for the scale and nature of its operations.

Recognised market operator

Division 3 of Part 2 of the SFA governs recognised market operators. As recognised market operators, SGX-FX and SGX-BT must, *inter alia*, (i) as far as is reasonably practicable, ensure that every organised market it operates is a fair, orderly and transparent organised market, (ii) manage any risks associated with its business and operations prudently, (iii) in discharging its obligations under the SFA, not act contrary to the interests of the public, having particular regard to the interests of the investing public, (iv) ensure that access for participation in its facilities is subject to criteria that are (A) fair and objective and (B) designed to ensure the orderly functioning of the organised market that it operates and to protect the interests of the investing public, (v) maintain business rules and, where appropriate, listing rules that make satisfactory provision for (A) the organised market to be operated in a fair, orderly and transparent manner, and (B) the proper regulation and supervision of its members, (vi) enforce compliance with its business rules and, where appropriate, its listing rules, and (vii) have sufficient financial, human and system resources to (A) operate a fair, orderly and transparent organised market, (B) meet contingencies or disasters (including technical disruptions occurring within automated systems), and (C) provide adequate security arrangements.

Approved clearing houses

Division 2 of Part 3 of the SFA governs approved clearing houses. As approved clearing houses, each of the Clearing Houses have a duty to, *inter alia*, (i) operate a safe and efficient clearing facility, (ii) manage any risks associated with its business and operations prudently, (iii) in discharging its obligations under the SFA, not act contrary to the interests of the public, having particular regard to the interests of the investing public, and (iv) have sufficient financial, human and system resources to (A) operate a safe and efficient clearing facility, (B) to meet contingencies or disasters (including technical disruptions occurring within automated systems), and (C) provide adequate security arrangements.

The Clearing Houses shall each also (1) ensure that access for participation in its clearing facility is subject to criteria that are fair and objective, and that are designed to ensure the safe and efficient functioning of its facility and to protect the interests of the investing public, (2) maintain business rules that make satisfactory provision for (A) the clearing facility to be operated in a safe and efficient manner, and (B) the proper regulation and supervision of its members, and (3) enforce compliance by its members with its business rules.

Further, the Clearing Houses have an obligation to manage risks prudently including, *inter alia*, ensuring that the systems and controls concerning the assessment and management of risks of the clearing facilities that the Clearing Houses operate are adequate and appropriate for the scale and nature of their operations.

Approved holding company

Division 2 of Part 3A of the SFA governs approved holding companies. As an approved holding company, SGX has an obligation to, among others, (i) notify the MAS as soon as practicable after the occurrence of certain circumstances of such circumstances including (A) the carrying on of any activity by SGX other than such activity or such class of activities prescribed by regulations made under Section 81ZK of the SFA, and (B) the acquisition by SGX of a substantial shareholding in a corporation which carries on any activity other than such activity or such class of activities prescribed by regulations made under Section 81ZK of the SFA, (ii) submit to MAS such reports in such form, manner and frequency as MAS may prescribe, and (iii) together with its officers and employees, maintain, and aid in maintaining, the confidentiality of all user information that comes to the knowledge or is in the possession of SGX or any of its officers or employees.

Power to make rules

Under the SFA, the MAS may by regulations made under Section 44 of the SFA prescribe the matters that the Exchanges must provide for in its business rules or listing rules, and the Exchanges must provide for those matters in its business rules or listing rules, as the case may be. The business rules of the Exchanges are to be treated, and are to operate, as a binding contract between (i) each Exchange and each of its members, and (ii) each member and every other member of that Exchange.

Likewise, the MAS may prescribe the matters that the Clearing Houses shall provide for in its business rules, and the Clearing Houses shall provide for those matters in its business rules or listing rules, as the case may be. The business rules of each of the Clearing Houses are treated as, and are to operate as, a binding contract between (a) the relevant Clearing House and each issuer of securities of that Clearing House, (b) the relevant Clearing House and each participant of that Clearing House, (c) each issuer of securities of a Clearing House and each participant of that Clearing House, and (d) each participant of a Clearing House and every other participant of that Clearing House.

Governance

The Group’s governance structure must comply with the SFA requirements. Each of the Exchanges and Clearing Houses has obligations under the SFA to ensure that it appoints or employs fit and proper persons as its chairperson, chief executive officer, directors and key management officers. Further, the Chairman, CEO and Directors of SGX must be approved by the MAS. The MAS may also require SGX to obtain its approval for the appointment of any person to any key management position or committee.

As for SGX RegCo, the majority of the SGX RegCo Board, including the chairman, must comprise directors independent from the Group. All SGX RegCo directors and the SGX RegCo chief executive officer, must also be independent from any other entities listed on the SGX-ST and the trading and clearing members of the Exchanges and Clearing Houses. SGX RegCo's chairman and directors are approved by the MAS and the SGX RegCo Board reports to the MAS and the Board on the discharge of its duties. Further, the chief executive officer of SGX RegCo reports exclusively to the SGX RegCo Board in relation to the performance of the functions of SGX RegCo.

Control of substantial shareholding

Under the SFA, no person shall enter into any agreement to acquire shares in SGX or either of the Clearing Houses by virtue of which he would, if the agreement had been carried out, become a substantial shareholder of SGX or the relevant Clearing House without first obtaining the MAS' approval to enter into the agreement. Further, no person shall, without MAS' approval, hold or be in a position to control, alone or together with his associates, either (i) 12% or more, or (ii) 20% more of the shares in SGX or any of the Clearing Houses.

In respect of the Exchanges, under the SFA, a person must not enter into any agreement to acquire shares in either of the Exchanges by virtue of which the person would, if the agreement had been carried out, become a substantial shareholder of the relevant Exchange without first obtaining the MAS' approval to enter into the agreement. Further, a person must not, without first obtaining MAS' approval, hold or be in a position to control, alone or together with the person's associates, either (i) 12% or more, or (ii) 20% more of the shares in any of the Exchanges.

Statutory immunity

The Exchanges and the Clearing Houses are given statutory immunity. The SFA provides that no criminal or civil liability shall be incurred by the Exchanges and the Clearing Houses, for anything done (including any statement made) or omitted to be done with reasonable care and in good faith in the course of, or in connection with, the discharge or purported discharge of their respective obligations under the SFA or under the business rules or, where appropriate, listing rules of the Exchanges and the Clearing Houses (including the default rules of the Clearing Houses).

The statutory immunity also extends to any person acting on behalf of the Clearing Houses or Exchanges including any director of the Exchanges and/or Clearing Houses and any member of any committee established by the Exchanges and/or Clearing Houses.

In addition, the SFA provides that the CDP, if acting in good faith and without negligence, shall not be liable for conversion or for any breach of trust or duty where the CDP has, in respect of book-entries in accounts maintained by it, made entries regarding the book-entry securities, or transferred or delivered the book-entry securities, according to the instructions of a depositor even though the depositor had no right to dispose of or take any other action in respect of the book-entry securities.

MAS' other powers with respect to the Group

As the statutory regulator, the MAS has the power under the SFA to require SGX, the Exchanges and the Clearing Houses to submit to it such reports in such form, manner and frequency as it may prescribe. Where the MAS is satisfied, *inter alia*, that it is in the interest of the public to revoke the approval or recognition, as the case may be, or if SGX, the Exchanges or the Clearing Houses, or SGX-FX or SGX-BT contravene any provisions in the SFA, the MAS may revoke the approval or, as the case may be, recognition of SGX, the Exchanges, the Clearing Houses, SGX-BT or SGX-FX as an approved holding company, approved exchange, approved clearing house or, as the case may be, recognised market operator.

Further, the MAS has the power to, *inter alia*, prohibit the trading in particular securities of, or made available, by an entity, particular securities-based derivatives contracts of, or made available, by an entity or particular units in a collective investment scheme on the SGX-ST if it is of the opinion that it is necessary to do so (i) in order to protect persons buying or selling the securities, securities-based derivatives contracts or units in a collective investment scheme, as the case may be, or (ii) in the interests of the public.

SGX Listing Rules

As a listed company, SGX is subject to the Mainboard Rules, with the MAS as its direct listing regulator. Similar to other companies listed on the SGX-ST, SGX is expected to comply with the continuing obligations imposed on listed issuers under the Mainboard Rules, including the obligation to keep the market and shareholders informed of price-sensitive information in a timely manner, disclose and obtain shareholders' approval in respect of important acquisitions and disposals in accordance with the materiality thresholds laid down by the Mainboard Rules, publish financial information on an annual and half-yearly basis as required and observe a high standard of corporate governance.

SGX complies with the Code of Corporate Governance 2018 as well as the Securities and Futures (Corporate Governance of Approved Exchanges, Approved Clearing Houses and Approved Holding Companies) Regulations 2005.".

DIRECTORS AND MANAGEMENT

The section titled "Directors and Management" on pages 219 to 232 of the Original Offering Circular shall be deleted in its entirety and replaced by the following:

"Directors and Management

Directors

The Board of Directors of SGX (the "**Board**") oversees the conduct of the Group's affairs and is accountable to shareholders for the long-term performance and financial soundness of the Group.

The following table and description below set forth certain information concerning the Board as at the date of this Supplemental Offering Circular:

Name	Position
Mr Koh Boon Hwee	Chairman and Non-Executive and Independent Director
Mr Loh Boon Chye	Chief Executive Officer ("**CEO**") and Executive and Non-Independent Director
Dr Beh Swan Gin	Non-Executive and Independent Director
Ms Lim Sok Hui (Mrs Chng Sok Hui)	Non-Executive and Non-Independent Director
Ms Julie Gao	Non-Executive and Independent Director
Mr Lim Chin Hu	Non-Executive and Independent Director
Ms Lin Huey Ru	Non-Executive and Independent Director
Mr Mark Makepeace	Non-Executive and Non-Independent Director
Ms Claire Perry O'Neill	Non-Executive and Independent Director
Prof. Subra Suresh	Non-Executive and Independent Director
Mr Samuel Tsien	Non-Executive and Independent Director
Mr Yeoh Oon Jin	Non-Executive and Independent Director

The address of each of the Directors of the Company, in their capacity as Directors of the Company, is 2 Shenton Way, #02-02, SGX Centre 1, Singapore 068804.

Mr Koh Boon Hwee

Chairman

Non-Executive and Independent Director

Mr Koh Boon Hwee joined the Board on 15 March 2022. In January 2023, upon the retirement of Mr Kwa Chong Seng, Mr Koh was appointed Chairman of the Board. Mr Koh is a member of the Nominating & Governance Committee and the Remuneration & Staff Development Committee.

Mr Koh is the Chairman of Altara Ventures Pte Ltd, a venture capital firm providing early and growth stage capital and expertise to entrepreneur led start-ups and SMEs largely in Southeast Asia. He is also the Chairman of Sunningdale Tech Ltd, Rippledot Capital Advisers Pte Ltd and Agilent Technologies, Inc and a Board Member of GIC Pte Ltd. He is also the Chairman of the Securities Industry Council.

Mr Koh started his career in 1977 at Hewlett Packard and rose to become its Managing Director in Singapore from 1985 to 1990. From 1991 to 2000, he was Executive Chairman of the Wuthelam Group.

Mr Koh was also the Chairman of the Singapore Telecom Group and its predecessor organisations from 1986 to 2001, Chairman of Singapore Airlines Limited from 2001 to 2005, Chairman of DBS Bank from 2006 to 2010 and served on the Board of Temasek Holdings Pte Ltd from 1996 to 2010. He was Chairman of AAC Technologies Holdings Inc from 2004 to 2020. Mr Koh was also the Chairman of the Board of Trustees and its predecessor Council of the Nanyang Technological University ("**NTU**") from 1993 until his retirement in March 2021. He was a Director of the Hewlett Foundation in the United States from September 2007 until his retirement in March 2022, and Chairman of the Investment Committee overseeing the Endowment's investment from July 2015 until his aforesaid retirement.

Mr Koh received his Bachelor's Degree (First Class Honours) in Mechanical Engineering from the Imperial College of Science and Technology, University of London, and his MBA (Distinction) from the Harvard Business School. He also received honorary doctorates from Imperial College London in 2014 and from NTU in 2021.

Mr Koh was last re-elected as a director of SGX at the Annual General Meeting on 6 October 2022.

Mr Loh Boon Chye

CEO

Executive and Non-Independent Director

Mr Loh Boon Chye was appointed CEO of SGX on 14 July 2015 and to the Board on 20 July 2015.

Over the years, Mr Loh has played a key role in the development of Southeast Asia's capital markets, having held several senior advisory positions. Apart from his directorship on the SGX Board from 2003 to 2012, he has also been on the Boards of GIC Pte Ltd since November 2012. Mr Loh is also Chairman of the Sim Kee Boon Institute for Financial Economics Advisory Board, Co-Chair of the Council for Board Diversity and Vice-Chair of the World Federation of Exchanges.

Mr Loh leads the Group's efforts in sustainability and climate action. He serves as an independent advisory committee member in the United Nations Sustainable Stock Exchange Initiative, and advisory board member for the Climate Governance Singapore Limited and Glasgow Financial Alliance for Net Zero ("**GFANZ**")'s Asia-Pacific Network. He is also a member of the GFANZ's CEO Principals Group.

With a career in the financial industry spanning 30 years, Mr Loh was Deputy President and Head of Asia Pacific Global Markets at Bank of America-Merrill Lynch from December 2012 to May 2015. He was also the bank's Country Executive for Singapore and Southeast Asia and a member of its Asia Pacific Executive Committee. From 1995 to 2012, Mr Loh was with Deutsche Bank AG, where he held various leadership roles including Head of Corporate & Investment Banking for Asia Pacific and Head of Global Markets for Asia.

Mr Loh is a council member and Distinguished Fellow at the Institute of Banking & Finance Singapore. He was also previously Chairman of the Singapore Foreign Exchange Market Committee, as well as Deputy President of ACI Singapore.

Mr Loh holds a Bachelor of Engineering degree from the National University of Singapore.

Mr Loh was last re-elected as a director of SGX at the Annual General Meeting on 5 October 2023.

Dr Beh Swan Gin

Non-Executive and Independent Director

Dr Beh Swan Gin was appointed to the Board on 1 February 2020. He is the Chairman of the Nominating & Governance Committee and a member of the Remuneration & Staff Development Committee.

Dr Beh was appointed as the Permanent Secretary (Development) at the Ministry of Trade and Industry on 1 May 2023. He was the Chairman of the Singapore Economic Development Board ("**EDB**") from 1

December 2014 to 30 April 2023, and chaired the boards of directors of EDB Investments and EDBI Pte. Ltd. Prior to that, Dr Beh was Permanent Secretary of the Ministry of Law from 1 July 2012 to 30 November 2014.

Dr Beh joined EDB in November 1992 and held various portfolios over the years. Dr Beh also held concurrent appointments as the Executive Director of the Biomedical Research Council at the Agency for Science, Technology & Research, as well as the Director of the Ministry of Trade & Industry's Energy Planning Division. He was Managing Director of EDB from 1 August 2008 to 30 June 2012 before his appointment at the Ministry of Law.

Dr Beh is a medical doctor by training and graduated from the National University of Singapore. He is also a Sloan Fellow with a Master of Science in Management from Stanford University's Graduate School of Business, and completed the Advanced Management Programme at the Harvard Business School.

Dr Beh also chairs the board of CapitaLand Ascendas REIT Management Limited. In addition, he is a member of the Young Presidents' Organisation.

Dr Beh was last re-elected as a director of SGX at the Annual General Meeting on 6 October 2022.

Ms Lim Sok Hui (Mrs Chng Sok Hui)

Non-Executive and Non-Independent Director

Mrs Chng Sok Hui was appointed to the Board on 1 December 2015. She is the Chairperson of the Risk Management Committee.

Mrs Chng is the Chief Financial Officer of DBS Group and a member of the DBS Group Executive Committee. Prior to this appointment in 2008, she was the Managing Director and Head of Risk Management at DBS Group and held the position for six years.

Mrs Chng is currently a member of the Board of DBS Bank India Limited. She is also a member of the Board of Changi Airport Group and chairs its Audit Committee. Additionally, she is a member of the CareShield Life Council. Mrs Chng previously served on the Boards of Bank of the Philippine Islands, The Inland Revenue Authority of Singapore, Housing & Development Board and Accounting Standards Council and, for 10 years, as the Supervisor of the Board of DBS Bank (China) Limited.

Mrs Chng is a Chartered Financial Analyst, a Certified Financial Risk Manager, an Institute of Banking and Finance Singapore ("**IBF**") Distinguished Fellow, as well as a Fellow Chartered Accountant of Singapore. Mrs Chng was the recipient of Asia Risk's Risk Manager of the Year Award in 2002 and was the recipient of The Asian Banker's Inaugural Risk Manager of the Year Award in 2012. Mrs Chng was named Best Chief Financial Officer at the Singapore Corporate Awards 2013, Accountant of the Year in the inaugural Singapore Accountancy Awards in 2014 and Best Chief Financial Officer in Singapore by the FinanceAsia's Best Companies Awards in 2023. She is a member of the International Women's Forum (Singapore). Mrs Chng is also a member of the International Women's Forum (Singapore).

Mrs Chng was last re-elected as a director of SGX at the Annual General Meeting on 6 October 2022.

Ms Julie Gao

Non-Executive and Independent Director

Ms Julie Gao was appointed to the Board on 1 May 2023. She is a member of the Audit Committee.

Ms Gao is the Chief Financial Officer of ByteDance with a wide array of responsibilities including finance, corporate development and IR/capital markets. She has advised ByteDance since its early years and worked on its financings, significant acquisitions and corporate structure. She joined ByteDance as their Chief Financial Officer in 2022.

Ms Gao has extensive experience in corporate governance and corporate development across companies at varying development stages, after practicing corporate law for over 23 years in the U.S.

and Asia. Prior to ByteDance, she was most recently a senior partner of Skadden Arps, a global law firm headquartered in New York, and a member of the firm's Policy Committee, its highest governing body. Ms Gao worked at Skadden Arps' Hong Kong office from 2009 to 2022, and Latham & Watkins' Los Angeles and Hong Kong offices from 1998 to 2009. In the early stage of her career, Ms Gao worked at a non-profit legal aid organisation, the Asian Pacific American Legal Center in Los Angeles, from 1993 to 1995.

Ms Gao has had education and careers in law and finance in the east and the west. She has a bachelor's degree in law from Peking University and a Juris Doctor degree from the UCLA School of Law. She also completed an executive education program in finance at Harvard Business School.

Mr Lim Chin Hu

Non-Executive and Independent Director

Mr Lim Chin Hu was appointed to the Board on 21 September 2017. He is the Chairman of the Remuneration & Staff Development Committee and a member of the Nominating & Governance Committee and the Risk Management Committee.

Mr Lim was CEO of Frontline Technologies Corp. Ltd from 2000 to 2008, a SGX listed company which was privatised by British Telecoms ("**BT**") in 2008. He served as CEO of BT Southeast Asia from 2008 until retirement in 2011.

Mr Lim has over 30 years of experience in the Info-communications industry. He started his career with Hewlett Packard in 1981 and held various management positions in Hewlett Packard Singapore and Southeast Asia. He was Managing Director of Sun Microsystems (Singapore) (now Oracle) and country manager for Sun Microsystems in Thailand, the Philippines and Vietnam.

Mr Lim serves on the board of Kulicke & Soffa Inc (Nasdaq: KLIC), Singapore Technologies Engineering Ltd, Citibank Singapore Ltd, Heliconia Capital Management Pte Ltd and Singapore Health Services Pte. Ltd.

Mr Lim previously served as a board member of Infocomm Development Authority of Singapore, Singapore IT Federation, Singapore Institute of Directors, Telstra Corporation, Changi General Hospital and Keppel DC REIT Management Pte. Ltd.

He holds a Bachelor of Science from La Trobe University, Melbourne, Australia and a Diploma in Electrical & Electronics Engineering from Ngee Ann Polytechnic. He attended the International Director's Program at INSEAD and UCLA Director's Training program. Mr Lim is a Fellow of Singapore Institute of Directors.

Mr Lim was last re-elected as a director of SGX at the Annual General Meeting on 5 October 2023.

Ms Lin Huey Ru

Non-Executive and Independent Director

Ms Lin Huey Ru was appointed to the Board on 1 May 2023. She is a member of the Risk Management Committee.

Ms Lin was the founding Chief Operating Officer at Affirm Holdings, Inc.. She was responsible for building the Finance, Compliance, Legal, Human Resource, General and Administrative Expenses, Business Operation, Client Success, and Customer Service teams. Ms Lin began her career at PayPal as one of the company's first product managers. She subsequently spent more than a decade at the firm where she led China and Asia-Pacific operations in addition to serving in key leadership roles in product, international risk, and policy strategy.

Most recently, Ms Lin was the President of Asia at Flexport, a modern freight forwarder and one of the fastest-growing companies in global trade. She led all activities for Flexport across Asia, the company's most strategic market.

Ms Lin is currently a Venture Partner with GGV Capital where she supports and advises the fund's portfolio companies. She also leads special projects at Terraformation whose mission is to catalyse global forest restoration to solve climate change. She serves on the board of Hang Seng Bank and Nium. She is an advisor to Chainlink Labs, the Monetary Authority of Singapore, TrueLayer, and PayU, amongst others. She has previously served as an advisor to Grab and Crypto.com.

Ms Lin holds a Bachelor of Science degree from Carnegie Mellon University and a Master of Arts degree from Stanford University.

Mr Mark Makepeace

Non-Executive and Non-Independent Director

Mr Mark Makepeace was appointed to the Board on 24 September 2020. He is a member of the Risk Management Committee.

Until January 2019, Mr Makepeace was Group Director of Information Services of London Stock Exchange Group ("**LSEG**") and Chief Executive of FTSE Russell, the global index provider. Mr Makepeace started his career in financial services in 1985, when he joined the LSEG to coordinate "Big Bang" (the deregulation of securities trading in the City of London). During this period with the LSEG, Mr Makepeace helped develop its IT and information services business, led regulation of UK equities and was involved in Europe's first cross-border international equities market.

In 1995, Mr Makepeace founded FTSE International (a joint venture between the Financial Times and LSEG) and grew the index business from a small UK start up with nine staff to become one of the largest and most successful global index providers today with offices and operations in over 15 cities worldwide. In 2012, LSEG bought out the Financial Times becoming the sole owner of FTSE. In 2014, LSEG acquired Russell Indexes and Mr Makepeace oversaw its integration into FTSE to form FTSE Russell, a global benchmarking leader with over $16 trillion of assets linked to its indexes.

Mr Makepeace has over 20 years' experience of developing successful joint ventures. He has successfully forged alliances with stock exchanges, academics and leading industry groups around the world, establishing substantial businesses in Asia, Europe, Middle East, Africa and the Americas. He was a founding member of the Index Industry Association and its first chairman.

Mr Makepeace has been a long-time supporter of the children's charity UNICEF. In 2002, he was awarded an Honorary Fellowship from UNICEF and since 2011, he has served as an honorary Vice President of UNICEF UK. In 2016, Mr Makepeace served as a Commissioner on the Dormant Assets Commission set up by the UK Treasury. In September 2019, Mr Makepeace was appointed a Distinguished Fellow at the Georgetown Centre for Financial Markets and Policy, Georgetown University, Washington DC. In January 2020, Mr Makepeace was appointed a member of the Board of Directors of the Saudi Stock Exchange (Tadawul).

Mr Makepeace was last re-elected as a director of SGX at the Annual General Meeting on 5 October 2023.

Ms Claire Perry O'Neill

Non-Executive and Independent Director

Ms Claire Perry O'Neill was appointed to the Board on 5 October 2023.

Ms O'Neill had a 20-year career in consultancy and finance before entering UK politics in 2010. She served as Minister for Energy and Clean Growth in the UK Cabinet where she led the development of the UK's Clean Growth and Green Finance Strategies and headed the UK Carbon Capture, Usage and Storage taskforce. Ms O'Neill also created the global Powering Past Coal Alliance (with Canada), negotiated the world's first public-private Offshore Wind SectorDeal and brought forward the country's

Net Zero legislation in 2019. She led the UK's winning bid to host the United Nations Climate Change Conference in 2021.

Ms O'Neill now co-chairs the Global Imperatives Advisory Board for the World Business Council for Sustainable Development and serves as a main Board Director for Occidental Petroleum, Singapore Exchange Limited and Climate Impact X. She is also a Senior Global Advisor for McKinsey and Company and an advisor to the international investment firm Hambro Perks. She invests in and advises several companies in a global low carbon technology portfolio.

Ms O'Neill is a member of the UK Privy Council, a Fellow of the Royal Geographic Society and the UK Energy Institute and is a Business Fellow at the Smith School of Enterprise and Environment at Oxford University.

Prof. Subra Suresh

Non-Executive and Independent Director

Prof. Suresh was appointed to the Board on 20 September 2018. He is a member of the Nominating & Governance Committee.

Prof. Suresh is an eminent American scientist, engineer and entrepreneur with decades of distinguished and impactful leadership in academia, industry and government. He served as the 4th President of NTU from January 2018 to December 2022.

Prof. Suresh was the 9th President of Carnegie Mellon University from 2013 to 2017. Before that, he served as Director of the U.S. National Science Foundation from 2010 to 2013, and Dean of the School of Engineering and Vannevar Bush Professor of Engineering from 2007 to 2010 at the Massachusetts Institute of Technology ("**MIT**"), where he was a faculty member for two decades.

Prof. Suresh's research in materials science and engineering, mechanics and biomedicine has helped to shape disciplines and technologies at the intersections of engineering, science and medicine. In recognition of his stellar academic achievements, the NTU Board of Trustees appointed him the inaugural Distinguished University Professor. Established in 2017, this Professorship is awarded for extraordinary scholarly achievement, typically across multiple disciplinary boundaries, and it is the highest academic recognition at NTU. Prof. Suresh was nominated by former United States President Barack Obama in 2010 to lead the U.S. National Science Foundation as Director. He was unanimously confirmed by the U.S. Senate.

Prof. Suresh has served as a consultant to the National Science and Technology Board and the Advisory Boards or Councils of institutes under the Agency for Science, Technology and Research (A*STAR), Singapore's lead public agency that drives research to advance discovery and innovation, and other government bodies. He was also on the Boards of several faculties within the National University of Singapore, where he was the inaugural Tan Chin Tuan Centennial Chair from 2006 to 2010.

Prof. Suresh was the principal faculty from MIT who led the formation of the Singapore-MIT Alliance for Research and Technology ("**SMART**"), established in 2007 as the first centre in Singapore's international research campus and innovation hub, the National Research Foundation's Campus for Research Excellence and Technological Enterprise ("**CREATE**"). In this capacity, he worked closely with the MIT and Singapore research communities, and crystallised and presented the vision for the SMART centre and its role in the CREATE campus in July 2006 to the Research, Innovation and Enterprise Council, chaired by Singapore's Prime Minister, Lee Hsien Loong.

Prof. Suresh is currently an independent Director of HP Inc, California. He was also a member of the Science, Technology and Innovation Council appointed by the CEO of the Munich-based multinational company, Siemens AG from 2015 to 2019. He has previously served as a Director of LORD Corporation (a North Carolina-based private company offering technology products and services around the globe) and several non-profit organisations in the U.S. and overseas.

In recognition of his "outstanding accomplishments in technological innovations that contribute broadly to the development of industry and benefit society", the Industrial Research Institute ("**IRI**") selected Professor Suresh for its highest honour, the IRI Medal, in 2015.

Prof. Suresh holds the distinction of being the only university president elected to all three U.S. national academics of Sciences, Engineering and Medicine. He has also been elected to the American Academy of Arts and Sciences and the National Academy of Inventors.

Prof. Suresh is an elected member of 16 science and/or engineering academies based in the U.S., China, France, India, Sweden, Germany, Italy, Singapore and Spain. He has 20 honorary doctorates from universities around the world including Zhejiang University (China), Ecole Polytechnique Fédérale de Lausanne (Switzerland), Royal Institute of Technology (Sweden), Warwick University (UK), St Petersburg Polytechnic University (Russia), Dartmouth College (U.S.) and his alma mater, the Indian Institute of Technology, Madras.

Prof. Suresh was also chosen by Science Watch/Thomson Reuters as one of the top 100 most impactful materials scientists (based on publication citation impact) during the decade 2000-2010. In 2011, he was awarded the Padma Shri, one of the highest civilian honours, by the President of India.

Prof. Suresh was last re-elected as a director of SGX at the Annual General Meeting on 7 October 2021.

Mr Samuel Tsien

Non-Executive and Independent Director

Mr Samuel Tsien was appointed to the Board on 1 May 2022. He is a member of the Audit Committee, the Nominating & Governance Committee, and the Risk Management Committee.

Mr Tsien was Group Chief Executive Officer of Oversea-Chinese Banking Corporation Limited ("**OCBC**") between April 2012 and April 2021, and was on the Board of OCBC until his retirement on 14 April 2021. He was Adviser to the Board of OCBC from 15 April 2021 to 14 April 2022.

During the nine years as OCBC's Group CEO, Mr Tsien was also on the boards of all major OCBC Group companies, including Great Eastern Holdings Ltd, Bank of Singapore Ltd, OCBC Bank (Malaysia) Berhad, OCBC Wing Hang Bank Ltd, OCBC Wing Hang Bank (China) Ltd, and the Board of Commissioners of PT Bank OCBC NISP Tbk.

Mr Tsien is a Director of Mapletree Investments Pte Ltd, Jardine Cycle & Carriage Ltd and continues to serve on the Board of OCBC Wing Bank Ltd and Chairman of the Board of MPACT Management Ltd.

Prior to his retirement from OCBC Bank in April 2021, Mr Tsien was concurrently Chairman of the Association of Banks in Singapore, Vice Chairman of the Council of the Institute of Banking and Finance and Chairman of the Standards Committee of IBF. Appointed by the MAS, he was also Chairman of the Steering Committee for Singapore's interest rate regime transition from SOR and SIBOR transition to SORA. He was a member of the National Jobs Council, the MAS Financial Centre Advisory Panel, the MAS Payments Council.

Mr Tsien joined OCBC in July 2007 as Senior Executive Vice President and Global Head of Business Banking. In 2008, he assumed the position of Global Head, Global Corporate Bank and was appointed Group CEO in April 2012.

Prior to joining OCBC, he was President and Chief Executive Officer of China Construction Bank (Asia) in 2017, and President and Chief Executive Officer of Bank of America (Asia) from 1995 to 2006 based in Hong Kong. He was also Asia Consumer & Commercial Banking Group Executive of Bank of America Corporation and was on the Board of BankAmerica International Financial Corporation and Bank of America Overseas Corporation, the holding companies of Bank of America's investments and subsidiaries outside of the US.

Between 1992 and 1995, Mr Tsien was Head of Asia Credit Risk Management of Bank of America's commercial and retail banking group in Asia. He was named Senior Vice President of Bank of America Corporation in 1993, and Executive Vice President in 1996.

Before returning from the US to Asia in June 1992, Mr Tsien was with Bank of America's High Technology group based in San Francisco, USA. Prior to that, he was head of trade and manufacturing finance, ship finance, country credit officer and head of corporate banking in Hong Kong respectively.

Prior to moving to Singapore in 2007, Mr Tsien was a member of the Hong Kong Banking Advisory Committee, the Insurance Advisory Committee, the Securities and Futures Appeals Tribunal, and a director of the Board of Hong Kong Cyberport Management Company Ltd, a wholly owned organisation established by the Government of Hong Kong to develop information technology infrastructure. He was also Chairman of the Hong Kong Institute of Bankers.

Mr Tsien started his banking career with Bank of America as a management trainee. He was born in Shanghai, China, and raised in Hong Kong. He graduated from the University of California at Los Angeles in Economics.

Mr Tsien was last re-elected as a director of SGX at the Annual General Meeting on 6 October 2022.

Mr Yeoh Oon Jin

Non-Executive and Independent Director

Mr Yeoh Oon Jin was appointed to the Board on 1 July 2021. He is a member of the Audit Committee and the Risk Management Committee.

Mr Yeoh was the Executive Chairman of PricewaterhouseCoopers Singapore. He was previously the Leader of the firm's Assurance Practice, which is the firm's largest practice in terms of revenue and headcount. Mr Yeoh was also a member of the PwC Executive Board for the CaTSH firm, which comprises the PwC firms in Singapore, China, Hong Kong, and Taiwan.

Mr Yeoh was with PwC for more than 30 years. He was a key member of the firm's Leadership Team for more than 15 years and led the firm through key growth milestones. He also spearheaded key committees in the firm, including the PwC Singapore Strategies Committee.

Over the years, Mr Yeoh built up considerable experience working on corporatisations, initial public listings, due diligence, and transaction support work in relation to acquisitions and restructuring carried out by many of his wide range of clients.

Mr Yeoh serves as the Chairman of Singapore Land Authority and Council Member of Singapore Business Federation. He was previously a board member of Jurong Town Corporation, Accounting & Corporate Regulatory Authority and National Arts Council. Mr Yeoh graduated with a First Class Honours (Accounting) from the University of Birmingham, England. He is a prize winner of the Institute of Chartered Accountants of England and Wales professional exams.

Mr Yeoh is the chair of the Singapore Institute of Directors and is a member of the Institute of Chartered Accountants in England and Wales and a member of the Corporate Governance Advisory Committee, recently set up by the Monetary Authority of Singapore.

He was also the immediate past President of CPA Australia, Singapore Division, and a Council Member of Singapore Institute of International Affairs. He was previously the Council Member of the Institute of Singapore Chartered Accountants ("**ISCA**") and Chairman of the Auditing & Assurance Standards Committee of ISCA.

Mr Yeoh was last re-elected as a director of SGX at the Annual General Meeting on 5 October 2023.

Management

The following table and description below set forth certain information concerning the key management of SGX as at the date of this Supplemental Offering Circular:

Name	Position
Mr Loh Boon Chye	CEO
Mr Michael Syn	President
Mr Ng Yao Loong	Chief Financial Officer ("**CFO**")[15]
Ms Agnes Koh	Chief Risk Officer
Ms Angela Ryan	Senior Managing Director
Ms Tinku Gupta	Chief Information Officer
Mr Lee Beng Hong	Senior Managing Director
Mr Pol de Win	Senior Managing Director
Mr Tan Boon Gin	CEO, SGX RegCo

Mr Loh Boon Chye

CEO

Mr Loh Boon Chye was appointed CEO of SGX on 14 July 2015 and to the Board on 20 July 2015. For details on his profile, see "*Directors and Management – "Directors and Management – Directors*".

Mr Michael Syn

President

Mr Michael Syn is President of the Group. He has management responsibility for SGX's markets and platforms across asset classes. He heads SGX's Global Markets Division, and is CEO for SGX's stock market, central depository and futures markets and clearinghouse.

Prior to this role, Mr Syn led the Group's successful derivatives business in equity, commodity and currency assets. He joined SGX in 2011 with a background in investment banking and investment management.

Mr Syn serves on the board of Sentosa Development Corporation. He chairs Mount Faber Leisure Group, one of Singapore's leading operators of a suite of leisure and lifestyle services, anchored around the Singapore Cable Car Sky Network of six stations. He graduated with Master of Arts and PhD degrees from Cambridge University and attended the Harvard Advanced Management Program.

Mr Ng Yao Loong

CFO[16]

Mr Ng Yao Loong was appointed CFO of SGX with effect from 1 October 2020.

[15] On 13 December 2023, SGX announced that Mr Ng Yao Loong will transition to the position of Head of Equities by mid-2024 to provide dedicated leadership in the development of SGX's securities market. He will be in this role with Ms Janice Kan as co-head. SGX has commenced the search for a new CFO and Mr Ng will continue to serve as CFO in the meantime.

[16] On 13 December 2023, SGX announced that Mr Ng Yao Loong will transition to the position of Head of Equities by mid-2024 to provide dedicated leadership in the development of SGX's securities market. He will be in this role with Ms Janice Kan as co-head. SGX has commenced the search for a new CFO and Mr Ng will continue to serve as CFO in the meantime.

As the CFO, Mr Ng is responsible for the Group's finance related functions, including treasury, tax and investor relations, and workplace services. He also oversees corporate development, which includes corporate strategy and mergers and acquisitions, and the indices business functions.

Mr Ng has extensive experience in financial markets and infrastructures. He was previously with MAS where he spent more than seven years in senior positions, including Assistant Managing Director of the Development and International Group and Executive Director of the Markets Policy and Infrastructure Department and Financial Markets Strategy Department.

Prior to joining MAS, Mr Ng was an investment banker with Morgan Stanley in Singapore and Citigroup in Hong Kong and London.

Mr Ng holds a Master of Business Administration from the Kellogg School of Management, Northwestern University, and a Bachelor of Arts from the University of Cambridge.

Ms Agnes Koh

Chief Risk Officer

Ms Agnes Koh was appointed Chief Risk Officer of the Group from January 2014. She is responsible for championing and leading enterprise risk management activities across the organisation, establishing the risk frameworks for new products and business strategies, managing the clearing risk of the Group's securities and derivatives clearing houses and driving operational resilience and business continuity in the Group.

Ms Koh was appointed as Chairperson of Energy Market Company, a wholly-owned subsidiary of SGX which operates Singapore's wholesale electricity market from 1 October 2018. She is the Vice Chairperson of CCP12, a global association for central counterparties that work together on issues of mutual interest and benefit to minimise global systemic risk and enhance the efficiency and effectiveness of international markets. Ms Koh is also a representative member of the U.S. Commodity Futures Trading Commission's Global Advisory Committee ("**GMAC**"). The GMAC fosters open, transparent competitive and financially sound markets while overseeing regulatory and operational risks.

Ms Koh joined SGX on 1 December 2005 as Vice President in Risk Management and has worked through various roles within risk management. Prior to joining SGX, she had more than 11 years of experience in managing the foreign reserves of the Monetary Authority of Singapore and was also an auditor with a public accountancy firm.

Ms Koh was conferred the Distinguished Fellow award by the IBF in 2016. The IBF Distinguished Fellow is a significant role model who serves as a beacon of excellence for the financial industry. She is a Certified Public Accountant from Institute of CPA and holds an Honours in Bachelor of Accountancy from National University of Singapore.

Ms Angela Ryan

Senior Managing Director

Ms Angela Ryan joined SGX on 9 January 2024 as Chief Human Resources Officer.

Ms Ryan has over 25 years of global experience as an international human resources practitioner and is a seasoned leader in driving the people agenda across multiple geographies and industries. Prior to joining SGX, Ms Ryan was Group Chief Human Resources Officer with IHH Healthcare Berhad. Prior to that, she also served in various leadership roles including Senior Vice President of Human Resources (Asia Pacific and the Middle East) at Fox Networks Group (a subsidiary of The Walt Disney Company) and Global Chief Human Resources and Talent Officer with GroupM Worldwide LLC, a leading global media investment company.

Ms Ryan is a Fellow of the Chartered Institute of Personnel & Development and a Fellow of the Association of Coaching. She holds a Bachelor of Laws (Honours) from University of the West of England and a Masters in European Business from Bristol Business School in the United Kingdom.

Ms Tinku Gupta

Chief Information Officer

Ms Tinku Gupta was appointed Chief Information Officer of the Group in October 2023. In her role, Ms Gupta leads the operations and technology units, supporting the Group's ambitions to serve the entire capital structure and provide greater access to an ever-widening range of asset classes.

Building on the successes of the operations and technology teams, Ms Gupta also steers the group's continued progress towards increased automation and efficiency in delivering upgraded services to our customers.

Ms Gupta joined SGX in October 1996, in what was then SIMEX, as a software developer in the Technology team. She has held a variety of roles in business and technology functions, most recently as Chief Technology Officer where she led the future-proofing of the Group's technology capabilities and the building of differentiated platforms to support its multi-asset class strategy.

Ms Gupta previously headed the Business Integration and Programme Management function and also ran the Market Data and Connectivity business, before returning to lead the Technology unit in 2015.

In addition to her role at SGX, Ms Gupta is a member of the boards of Singapore University of Social Sciences and Singapore Institute of Management.

Ms Gupta holds a Masters' degree in Electronics and Telecommunications Engineering.

Mr Lee Beng Hong

Senior Managing Director

Mr Lee Beng Hong joined SGX on 1 August 2019 and he was appointed Head of Wholesale Markets & Platforms from 1 October 2023.

Under his leadership, Mr Lee spearheads the growth and development of the Group's FX business - SGX FX towards a fully-integrated and scalable FX platform to become a global one-stop venue for international FX futures and OTC participants. SGX FX offers market participants a gateway to the global FX ecosystem, anchored by SGX futures exchange together with cutting-edge FX technology and workflow solutions for both the buy-side and sell-side, and SGX CurrencyNode, an FX electronic communication network (ECN), which connects global participants anonymously to unique and deep OTC FX liquidity pools.

Mr Lee also has management responsibility for SGX's fixed income business, the Energy Market Company which operates Singapore's wholesale electricity markets, as well as various strategic alliances and partnerships.

With over 20 years of experience in financial markets, Mr Lee has held various senior roles in Deutsche Bank, specialising in Asian FICC trading, structuring, sales and coverage. He most recently led Deutsche Bank's financing and solutions group for North Asia, in addition to his responsibilities as Executive Vice-President of Deutsche Bank China and Head of Global Markets, China. He started his career in Deutsche Bank Singapore, where he managed rates and FX trading books across G3 and Asian markets.

Mr Lee holds a Master of Science in Financial Engineering from Nanyang Technological University, as well as a Master of Engineering (Civil) from National University of Singapore.

Mr Pol de Win

Senior Managing Director

Mr Pol de Win joined SGX as Head of GSO on 1 July 2021.

As Head of GSO, Mr de Win drives the growth of SGX's international presence, including strengthening client engagements globally and overseeing SGX's specialised sales teams in 10 cities. He leads the strategy and delivery of the equity and debt capital market businesses, as well as the development of distribution channels for SGX's products and services across all asset classes.

Mr de Win has extensive experience in capital markets advisory and transaction execution across Asia, Europe and the US. Prior to joining SGX, Mr de Win held various senior roles at Goldman Sachs. He most recently headed Southeast Asia Financial Institutions and Fintech (Asia ex-Japan) as Managing Director in Hong Kong.

Mr de Win is the Chairman of SGX Cares Bull Charge, the only corporate charity initiative that brings the financial industry and SGX-listed companies together to support the needs of the underprivileged, persons with disabilities and the elderly. Mr de Win leads the effort in rallying the community to raise funds for SGX Cares' beneficiaries.

Mr de Win holds a Master of Science degree from Erasmus University Rotterdam.

Mr Tan Boon Gin

CEO, SGX RegCo

Mr Tan Boon Gin joined SGX as Chief Regulatory Officer on 15 June 2015. He now heads Singapore Exchange Regulation Pte. Ltd., an independent regulatory subsidiary of SGX, which undertakes all front-line regulatory functions to promote a fair, orderly and transparent market.

Before joining SGX, Mr Tan was the Director of the Commercial Affairs Department of the Singapore Police Force. Prior to this, Mr Tan held several appointments at MAS including Director of the Enforcement Division, Director of the Corporate Finance Division and Executive Director of the Investment Intermediaries Department. Mr Tan was seconded to MAS after serving as a District Judge at Singapore's Subordinate Courts.

Mr Tan's earlier roles include serving as a Justices' Law Clerk at Singapore's Supreme Court and a Deputy Public Prosecutor at the Attorney General's Chamber, where he specialised in corruption and white-collar crime, before leaving to practise at Messrs Sullivan & Cromwell in New York. He is a member of the Singapore Institute of Directors Council and serves as Chairman of the Board of SATA CommHealth.

Mr Tan is an advocate and solicitor and holds degrees from the University of Cambridge and Harvard Law School. Mr Tan was awarded the Public Administration (Silver) Medal in 2010.

Board Committees

The Board has established four Board committees, namely the Audit Committee, the Nominating & Governance Committee, the Remuneration & Staff Development Committee, and the Risk Management Committee to assist in the execution of its responsibilities. These committees operate within clearly defined terms of reference.

Audit Committee

The Audit Committee is chaired by Mr Yeo Oon Jin and its members are Ms Julie Gao and Mr Samuel Tsien. All the members of the Audit Committee are independent non-executive directors. The members of the Audit Committee collectively have strong accounting and related financial management expertise and experience. They keep abreast of relevant changes to accounting standards and issues which have a direct impact on the financial statements.

The key roles and responsibilities of the Audit Committee are to:

Financial Reporting

- review the significant financial reporting issues and judgements so as to obtain reasonable assurance as to the integrity and fairness of the quarterly and annual financial statements and any announcement relating to the financial performance of the Group, before making recommendations to the Board;
- recommend the half-yearly financial statements, annual financial statements and the corresponding SGXNet announcements to the Board for approval;
- carry out due diligence when reviewing the Chief Executive Officer's and Chief Financial Officer's half-yearly assurances on the integrity of the financial records and financial statements and their basis that financial records have been properly maintained and the financial statements give a true and fair view of the Group's operations and finances;

External Audit

- review the selection of the external auditors and recommend to the Board the appointment, reappointment, termination, terms of engagement and remuneration of the external auditors;
- review the adequacy, effectiveness, independence, objectivity, scope and results of the external audit on an annual basis, and consider (a) the aggregate amount of fees paid to the external auditors for that financial year, and (b) a breakdown of the fees paid in total for audit and non-audit services, respectively, or an appropriate negative statement to be included in the annual report;
- review the nature, extent and costs of non-audit services provided by the external auditors, seeking to balance the independence and objectivity of the external auditor with the business and operational needs of SGX;
- review the results of the audit of financial statements and consider significant findings and recommendations of the external auditors and management's responses;
- review the external auditors' audit plans, interaction between the external and internal auditors and other matters related to the conduct of the audits;

Internal Audit

- review the adequacy and effectiveness of the internal audit function;
- review the independence of the Head of Internal Audit and ensure that he/she has direct and unrestricted access to the Chairman of the Board and the Audit Committee;
- review and concur in the appointment, replacement or dismissal of the Head of Internal Audit;
- review the performance and recommend the remuneration of the Head of Internal Audit;
- review and approve the scope of work and audit plans of the internal auditors, including interaction with management and other matters related to the conduct of the audits;
- review significant findings and recommendations of the internal auditors and management's responses;

Internal Controls and Regulatory Compliance

- review and report to the Board at least annually on the adequacy and effectiveness of internal control systems established by management, including financial, operational, compliance, governance process, risk management and IT controls;

Compliance

- review the compliance framework, and the scope of work and plan of the Compliance function;
- review non-compliance with applicable regulations and listing rules;
- review compliance matters that may have a material impact on the financial statements, related exchange compliance policies and matters and reports received from regulators;

Interested Person Transactions

- review interested person transactions;

Whistleblowing Policy

- review the policy and arrangements for staff and any other persons to raise concerns about possible improprieties in matters of financial reporting or other matters in confidence. Ensure that these arrangements allow concerns to be raised and that appropriate independent investigation of such matters, and follow-up actions to be taken. Review the disclosure of the whistle-blowing policy in the annual report, and publicly disclose the procedures for raising such concerns as appropriate;
- review and consider all whistleblowing complaints at its quarterly meetings to ensure independent, thorough investigation and appropriate follow-up actions; and
- report the results of investigations into suspected fraud or irregularities to the Board, as appropriate.

Nominating & Governance Committee

The Nominating & Governance Committee is chaired by Dr Beh Swan Gin and its members are Mr Koh Boon Hwee, Mr Lim Chin Hu, Prof. Subra Suresh, and Mr Samuel Tsien. All the members of the Nominating & Governance Committee are independent non-executive directors.

The key roles and responsibilities of the Nominating & Governance Committee are to:

- make recommendations to the Board on the matters relating to identifying candidates and reviewing all nominations for the approval of the Board for the appointment, re-appointment or termination of directors and members of the various Board Committees;
- make recommendations to the Board on the matters relating to how the Board's performance may be evaluated and propose objective performance criteria;
- make recommendations to the Board on the succession plan for the Board, in particular, the Chairman and the CEO;
- make recommendations relating to the review of training and professional development programmes for the Board;
- make recommendations relating to a corporate governance framework and from time to time, any developments pertaining to corporate governance;
- review the structure, size, diversity, balance and composition of the Board and Board Committees including the required mix of skills, knowledge and experience;
- review the results of the Board's performance evaluation;

- review the actions taken on issues and matters arising from the Board's performance evaluation; and
- determine annually, and as and when circumstances require, if a director is independent, bearing in mind the prevailing SGX Listing Rules, the Code of Corporate Governance and the Securities and Futures (Corporate Governance of Approved Exchanges, Approved Clearing Houses and Approved Holding Companies) Regulations 2005 and any other salient factors.

Remuneration & Staff Development Committee

The Remuneration & Staff Development Committee is chaired by Mr Lim Chin Hu and its members are Dr Beh Swan Gin and Mr Koh Boon Hwee. All the members of the Remuneration & Staff Development Committee are independent non-executive directors.

The key roles and responsibilities of the Remuneration & Staff Development Committee are to:

- oversee the governance of the Group's remuneration policy;
- review and make recommendations to the Board on the framework and policy of remuneration of the Board and key management personnel to ensure alignment with shareholders' interest and long-term value creation of the Group;
- oversee the remuneration of the Board and key management personnel including reviewing the remuneration of the CEO upon recruitment or renewal (where applicable);
- review and recommend to the Board, the specific remuneration packages for each director, the CEO and each key management personnel against the achievement of their prescribed goals and targets;
- review and consider all aspects of remuneration, including SGX's obligations in the event of termination of the CEO's and key management personnel's contracts of service, to ensure that all aspects of remuneration (including termination terms) are fair;
- approve and/or implement (as the case may be) the framework of remuneration for the entire organisation, including short-term and long-term incentive schemes and policies; and
- review the development and succession plan for EMCO members.

Risk Management Committee

The Risk Management Committee is chaired by Ms Lim Sok Hui (Mrs Chng) and its members are Mr Lim Chin Hu, Ms Lin Huey Ru, Mr Mark Makepeace, Mr Samuel Tsien and Mr Yeoh Oon Jin. All the members of the Risk Management Committee are non-executive directors. Ms Lim Sok Hui (Mrs Chng) and Mr Mark Makepeace are non-independent directors.

The key roles and responsibilities of the Risk Management Committee are to:

- review and make recommendations to the Board, the type and level of risk that SGX undertakes on an integrated basis to achieve its business strategy and the appropriate framework and policies for managing risks that are consistent with SGX's risk appetite;
- make recommendations to the Board on the delegation of authority on risk limits, SGX's capital management policy and capital plan and SGX's clearing fund structure, as well as the Company's contribution to the relevant clearing funds;
- make recommendations to the Board on the adequacy of SGX's long term technology strategy roadmap and progress of implementation against plan;
- review and approve the adequacy of the organisational framework and policies for managing risks of SGX, and reviewing SGX's performance against defined risk indicators;

- review and approve the adequacy of the framework and policies relating to the management of margin monies held with SGX, and relating to SGX's outsourcing arrangements; and

review (a) the adequacy of SGX's insurance programme, (b) SGX's performance against defined risk indicators, (c) technology service delivery against defined service levels, (d) operations service delivery against defined service levels, (e) the adequacy of the cyber security programme, (f) the adequacy of the disclosure and feedback mechanism for engaging with relevant stakeholders in relation to credit and liquidity stress-testing, and the margin system and (g) management's attestation of Business Continuity Management preparedness and the extent of alignment with MAS's Business Continuity Management Guidelines.".

TAXATION

The section titled "*Singapore Taxation*" on pages 233 to 238 of the Original Offering Circular shall be deleted in their entirety and replaced by the following:

"Singapore Taxation

The statements below are general in nature and are based on certain aspects of current tax laws in Singapore and administrative guidelines and circulars issued by the Inland Revenue Authority ("**IRAS**") of Singapore and the MAS in force as at the date of the Offering Circular, and are subject to any changes in such laws, administrative guidelines or circulars, or the interpretation of those laws, guidelines or circulars, occurring after such date, which could be made on a retroactive basis. These laws, guidelines and circulars are also subject to various interpretations and the relevant tax authorities or the courts could later disagree with the explanations or conclusions set out below. Neither these statements nor any other statements in the Offering Circular are intended or are to be regarded as advice on the tax position of any holder of the Notes or of any person acquiring, selling or otherwise dealing with the Notes or on any tax implications arising from the acquisition, sale or other dealings in respect of the Notes. The statements below do not purport to be a comprehensive or exhaustive description of all the tax considerations that may be relevant to a decision to subscribe for, purchase, own or dispose of the Notes and do not purport to deal with the tax consequences applicable to all categories of investors, some of which (such as dealers in securities or financial institutions in Singapore which have been granted the relevant Financial Sector Incentive(s) or hold a specified licence) may be subject to special rules or tax rates. Prospective holders of the Notes are advised to consult their own professional tax advisers as to the Singapore or other tax consequences of the acquisition, ownership or disposal of the Notes, including, in particular, the effect of any foreign, state or local tax laws to which they are subject. It is emphasised that none of the Issuer, the Arrangers, the Dealers or any other persons involved in the issuance of the Notes accepts responsibility for any tax effects or liabilities resulting from the subscription for, purchase, holding or disposal of the Notes.

Interest and Other Payments

Subject to the following paragraphs, under Section 12(6) of the Income Tax Act, the following payments are deemed to be derived from Singapore:

(a) any interest, commission, fee or any other payment in connection with any loan or indebtedness or with any arrangement, management, guarantee, or service relating to any loan or indebtedness which is (i) borne, directly or indirectly, by a person resident in Singapore or a permanent establishment in Singapore (except in respect of any business carried on outside Singapore through a permanent establishment outside Singapore or any immovable property situated outside Singapore) or (ii) deductible against any income accruing in or derived from Singapore; or

(b) any income derived from loans where the funds provided by such loans are brought into or used in Singapore.

Such payments, where made to a person not known to the paying party to be a resident in Singapore for tax purposes, are generally subject to withholding tax in Singapore. The rate at which tax is to be withheld for such payments (other than those subject to the 15 per cent. final withholding tax described below) to non-resident persons (other than non-resident individuals) is currently 17 per cent. The applicable rate for non-resident individuals is currently 24 per cent. However, if the payment is derived by a person not resident in Singapore from sources other than from its trade, business, profession or vocation carried on or exercised by such person in Singapore and is not effectively connected with any permanent establishment in Singapore of that person, the payment is subject to a final withholding tax of 15 per cent. The rate of 15 per cent. may be reduced by applicable tax treaties.

However, certain Singapore-sourced investment income derived by individuals from financial instruments is exempt from tax, including:

(a) interest from debt securities derived on or after 1 January 2004;

(b) discount income (not including discount income arising from secondary trading) from debt securities derived on or after 17 February 2006; and

(c) early redemption fee and redemption premium from debt securities derived on or after 15 February 2007,

except where such income is derived through a partnership in Singapore or is derived from the carrying on of a trade, business or profession in Singapore.

In addition, as the Programme was wholly arranged by Financial Sector Incentive (Capital Market) Companies, Financial Sector Incentive (Standard Tier) Companies or Financial Sector Incentive (Bond Market) Companies (each as defined in the Income Tax Act) before 15 February 2023 and remains to be so arranged, any tranche of Notes (the "**Relevant Notes**") issued as debt securities under the Programme during the period from the date of the Offering Circular to (and including) 31 December 2028 would be qualifying debt securities pursuant to the Income Tax Act and the MAS Circular FDD Cir 08/2023 entitled "Qualifying Debt Securities and Primary Dealer Schemes – Extension and Refinements" issued by the MAS on 31 May 2023 (the "**MAS Circular**"), to which the following treatments shall apply:

(a) subject to certain prescribed conditions having been fulfilled (including the submission to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require, and the inclusion by the Issuer in all offering documents relating to the Relevant Notes of a statement to the effect that where interest, discount income, early redemption fee or redemption premium from the Relevant Notes is derived by a person who is not resident in Singapore and who carries on any operation in Singapore through a permanent establishment in Singapore, the tax exemption for qualifying debt securities shall not apply if the non-resident person acquires the Relevant Notes using funds from that person's operations through the Singapore permanent establishment), interest, discount income (not including discount income arising from secondary trading), early redemption fee and redemption premium (collectively, the "**Qualifying Income**") from the Relevant Notes, derived by a holder who is not resident in Singapore and who (aa) does not have any permanent establishment in Singapore or (bb) carries on any operation in Singapore through a permanent establishment in Singapore, but the funds used by that person to acquire the Relevant Notes are not obtained from such person's operation through a permanent establishment in Singapore, are exempt from Singapore tax;

(b) subject to certain conditions having been fulfilled (including the submission to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require), Qualifying Income from the Relevant Notes derived by any company or body of persons (as defined in the Income Tax Act) in Singapore is subject to income tax at a concessionary rate of 10 per cent. (except for holders who have been granted the relevant Financial Sector Incentive(s) who may be taxed at different rates); and

(c) subject to:

(i) the Issuer including in all offering documents relating to the Relevant Notes a statement to the effect that any person whose interest, discount income, early redemption fee or redemption premium derived from the Relevant Notes is not exempt from tax shall include such income in a return of income made under the Income Tax Act; and

(ii) the submission to the MAS of a return on debt securities in respect of the Relevant Notes in the prescribed format within such period as the MAS may specify and such other particulars in connection with the Relevant Notes as the MAS may require,

payments of Qualifying Income derived from the Relevant Notes are not subject to withholding of tax by the Issuer.

However, notwithstanding the foregoing:

(a) if during the primary launch of any tranche of the Relevant Notes, the Relevant Notes of such tranche are issued to less than four persons and 50 per cent. or more of the issue of such Relevant Notes is beneficially held or funded, directly or indirectly, by related parties of the Issuer, such Relevant Notes would not qualify as "qualifying debt securities"; and

(b) even though a particular tranche of Relevant Notes are "qualifying debt securities", if, at any time during the tenure of such tranche of Relevant Notes, 50 per cent. or more of the issue of such Relevant Notes which are outstanding at any time during the life of the issue is beneficially held or funded, directly or indirectly, by any related party(ies) of the Issuer, Qualifying Income derived from such Relevant Notes held by:

(i) any related party of the Issuer; or

(ii) any other person where the funds used by such person to acquire such Relevant Notes are obtained, directly or indirectly, from any related party of the Issuer,

shall not be eligible for the tax exemption or concessionary rate of tax as described above.

The term "**related party**", in relation to a person, means any other person who, directly or indirectly, controls that person, or is being controlled, directly or indirectly, by that person, or where he and that other person, directly or indirectly, are under the control of a common person.

The terms "**early redemption fee**" and "**redemption premium**" are defined in the Income Tax Act as follows:

- "**early redemption fee**", in relation to debt securities, qualifying debt securities or qualifying project debt securities, means any fee payable by the issuer of the securities on the early redemption of the securities; and
- "**redemption premium**", in relation to debt securities, qualifying debt securities or qualifying project debt securities, means any premium payable by the issuer of the securities on the redemption of the securities upon their maturity or on the early redemption of the securities.

References to "early redemption fee" and "redemption premium" in this Singapore tax disclosure have the same meaning as defined in the Income Tax Act.

Where interest, discount income, early redemption fee and redemption premium (i.e. the Qualifying Income) is derived from any of the Relevant Notes by any person who is not resident in Singapore and who carries on any operations in Singapore through a permanent establishment in Singapore, the tax exemption available for qualifying debt securities under the Income Tax Act (as mentioned above) shall not apply if such person acquires such Relevant Notes using the funds and profits of such person's operations through a permanent establishment in Singapore. Any person whose interest, discount income, early redemption fee or redemption premium derived from the Relevant Notes is not exempt from tax (including for the reasons described above) shall include such income in a return of income made under the Income Tax Act.

Notwithstanding that the Issuer is permitted to make payments of Qualifying Income in respect of the Relevant Notes without deduction or withholding for tax under Section 45 or Section 45A of the Income Tax Act, any person whose interest, discount income, early redemption fee and redemption premium (i.e. the Qualifying Income) derived from the Relevant Notes is not exempt from tax is required to include such income in a return of income made under the Income Tax Act.

Capital Gains

Any gains considered to be in the nature of capital made from the sale of the Notes will generally not be taxable in Singapore. However, any gains derived by any person from the sale of the Notes which are gains from any trade, business, profession or vocation carried on by that person, if accruing in or derived from Singapore, may be taxable as such gains are considered revenue in nature.

Holders of the Notes who apply or are required to apply Singapore Financial Reporting Standards 109 ("**FRS 109**") or Singapore Financial Reporting Standards (International) 9 ("**SFRS(I) 9**") may for Singapore income tax purposes be required to recognise gains or losses (not being gains or losses in the nature of capital) on the Notes, irrespective of disposal, in accordance with FRS 109 or SFRS(I) 9 (as the case may be) (as modified by the applicable provisions of Singapore income tax law). Please see the section below on "*Adoption of FRS 109 or SFRS(I) 9 Treatment for Singapore Income Tax Purposes*".

Adoption of FRS 109 or SFRS(I) 9 Treatment for Singapore Income Tax Purposes

Section 34AA of the Income Tax Act requires taxpayers who comply or who are required to comply with FRS 109 or SFRS(I) 9 for financial reporting purposes to calculate their profit, loss or expense for Singapore income tax purposes in respect of financial instruments in accordance with FRS 109 or SFRS(I) 9 (as the case may be), subject to certain exceptions. The IRAS has also issued a circular entitled "Income Tax: Income Tax Treatment Arising from Adoption of FRS 109 – Financial Instruments".

Holders of the Notes who may be subject to the tax treatment under 34AA of the Income Tax Act should consult their own tax advisers regarding the Singapore income tax consequences of their acquisition, holding or disposal of the Notes.

Estate Duty

Singapore estate duty has been abolished with respect to all deaths occurring on or after 15 February 2008."

SUBSCRIPTION AND SALE

The following amendments shall be made to the section titled "*Subscription and Sale*" in the Original Offering Circular.

Selling Restrictions

The following paragraphs shall be inserted after the paragraphs titled "*Prohibition of Sales to EEA Retail Investors*" on page 246 of the Original Offering Circular:

"**Prohibition of Sales to UK Retail Investors**

Unless the Pricing Supplement in respect of any Securities specifies the "Prohibition of Sales to UK Retail Investors" as "Not Applicable", each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Securities which are the subject of the offering contemplated by the Offering Circular as completed by the Pricing Supplement in relation thereto to any retail investor in the United Kingdom. For the purposes of this provision:

(a) the expression "**retail investor**" means a person who is one (or more) of the following:

  (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 ("**EUWA**"); or

  (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000 ("**FSMA**") and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA; or

  (iii) not a qualified investor as defined in Article 2 of Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA; and

(b) the expression "**offer**" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Securities to be offered so as to enable an investor to decide to purchase or subscribe for the Securities."

The paragraphs under the section "*Securities (excluding offers made under the Exempt Bond Issuer Framework and the Retail Seasoning Framework)*" on pages 248 and 249 of the Original Offering Circular will be deleted and replaced with the following paragraph:

"Each Dealer has acknowledged, and each further Dealer appointed under the Programme will be required to acknowledge, that this Offering Circular has not been registered as a prospectus with the MAS. Accordingly, each Dealer has represented warranted and agreed, and each further Dealer appointed under the Programme will be required to represent, warrant and agree, that it has not offered or sold any Securities or caused the Securities to be made the subject of an invitation for subscription or purchase and will not offer or sell any Securities or cause the Securities to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Circular or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of such Securities, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in Section 4A of the SFA) pursuant to Section 274 of the SFA or (ii) to an accredited investor (as defined in Section 4(A) of the SFA) pursuant to and in accordance with the conditions specified in Section 275 of the SFA."

PRICING SUPPLEMENT IN RELATION TO THE NOTES

PROHIBITION OF SALES TO EEA RETAIL INVESTORS – The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("**EEA**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (the "**Insurance Distribution Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

PROHIBITION OF SALES TO UK RETAIL INVESTORS – The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom ("**UK**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 ("**EUWA**"); or (ii) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the Financial Services and Markets Act 2000 ("**FSMA**") to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA. Consequently, no key information document required by Regulation (EU) No 1286/2014 as it forms part of domestic law by virtue of the EUWA (the "**UK PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

Singapore Securities and Futures Act Product Classification – In connection with Section 309B of the Securities and Futures Act 2001 of Singapore (the "**SFA**") and the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore (the "**CMP Regulations 2018**"), the Issuer has determined, and hereby notifies all relevant persons (as defined in Section 309A(1) of the SFA), that the Notes are "prescribed capital markets products" (as defined in the CMP Regulations 2018) and are Excluded Investment Products (as defined in the Monetary Authority of Singapore (the "**MAS**") Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Pricing Supplement dated [●] 2024

Singapore Exchange Limited
(*incorporated in the Republic of Singapore on 21 August 1999*)

Issue of S$[●] [●] per cent. Notes due [●]
under the S$1,500,000,000 Multicurrency Debt Issuance Programme

This document constitutes the Pricing Supplement relating to the issue of Notes described herein.

Terms used herein shall be deemed to be defined as such for the purposes of the Terms and Conditions of the Notes (the "**Conditions**") set forth in the offering circular dated 17 October 2019 (the "**Original Offering Circular**"), as amended and supplemented by the supplemental offering circular dated [●] 2024 (the "**Supplemental Offering Circular**", and together with the Original Offering Circular, the "**Offering Circular**"). This Pricing Supplement contains the final terms of the Notes and must be read in conjunction with such Offering Circular as so supplemented.

Where interest, discount income, early redemption fee and redemption premium is derived from any of the Notes by any person who is not resident in Singapore and who carries on any operations in Singapore through a permanent establishment in Singapore, the tax exemption available for qualifying debt securities under the Income Tax Act 1947 of Singapore (the "**ITA**"), shall not apply if such person acquires such Notes using the funds and profits of such person's operations through a permanent establishment in Singapore. Any person whose interest, discount income, early redemption fee or redemption premium derived from the Notes is not exempt from tax (including for the reasons described above) shall include such income in a return of income made under the ITA.

1	(i)	Issuer:	Singapore Exchange Limited
2	(i)	Series Number:	002
	(ii)	(ii) Tranche Number:	1
3		Currency or Currencies:	Singapore dollars ("**S$**")
4		Aggregate Principal Amount:	
	(i)	Series:	S$[●]
	(ii)	Tranche:	S$[●]
5	(iii)	Issue Price:	[●] per cent.
6	(i)	Denomination Amount:	S$250,000
	(ii)	Calculation Amount:	S$250,000
	(iii)	Redenomination:	Not Applicable
7	(i)	Issue Date:	[●] 2024
	(ii)	Interest Commencement Date:	Issue Date
8		Maturity Date:	[●]
9		Interest Basis:	[●] per cent. Fixed Rate
10		Redemption/Payment Basis:	Redemption at par, save in the case of a Make Whole Redemption (as defined in paragraph 22 below)
11		Redemption Amount (including early redemption):	Denomination Amount (as specified in paragraph 6(i) above), save in the case of a Make Whole Redemption, wherein the Redemption Amount shall be the Make Whole Redemption Price (as defined in paragraph 22 below)
12		Change of Interest or Redemption/ Payment Basis:	Not Applicable
13		Put/Call Options:	Redemption at the Option of the Issuer (*further particulars specified in paragraph 22 below*) Redemption for Taxation Reasons (*further particulars specified in paragraph 24 below*)
14		Status of the Notes:	Senior
15		Listing and admission to trading:	Singapore Exchange Securities Trading Limited (the "**SGX-ST**")
16		Method of distribution:	Syndicated

PROVISIONS RELATING TO INTEREST (IF ANY) PAYABLE

17		Fixed Rate Note Provisions:	Applicable

	(i)	Interest Rate:	[●] per cent. per annum payable semi-annually in arrear
	(ii)	Interest Payment Date(s):	[●] February and [●] August in each year
	(iii)	Fixed Coupon Amount(s):	Not Applicable
	(iv)	Initial Broken Amount:	Not Applicable
	(v)	Final Broken Amount:	Not Applicable
	(vi)	Day Count Fraction:	Actual/365 (Fixed)
	(vii)	Other terms relating to the method of calculating interest for Fixed Rate Notes:	Not Applicable
18	Floating Rate Note Provisions:		Not Applicable
19	(iv)	Variable Rate Note Provisions:	Not Applicable
20	(v)	Hybrid Note Provisions:	Not Applicable
21	(vi)	Zero Coupon Note Provisions:	Not Applicable

PROVISIONS RELATING TO REDEMPTION

22 Redemption at the Option of the Issuer

Applicable

Condition 6(b) shall be deleted and replaced in its entirety with the following:

"**Redemption at the Option of the Issuer**

The Issuer may, on giving not less than 30 nor more than 60 days' irrevocable notice to the Noteholders (which notice shall be copied to the Trustee, the Issuing and Paying Agent and the Determination Agent) in writing, redeem all and not some only of the Notes at any time:

(i) prior to (and excluding) [●] (the date falling one month prior to the Maturity Date (as specified in paragraph 8 above)) at the Make Whole Redemption Price together with interest accrued and unpaid on the principal amount of such Notes up to (but excluding) the date fixed for redemption (such redemption, a "**Make Whole Redemption**"); and

(ii) on or after [●] (the date falling one month prior to the Maturity Date) at their principal amount together with interest accrued and unpaid on the principal amount of such Notes up to (but excluding) the date fixed for redemption.

All Notes in respect of which any such notice is given shall be redeemed on the Optional Redemption Date.

The notice of redemption shall specify the date fixed for redemption and, where the Make Whole Redemption Price is applicable, the method of calculation of the Make Whole Redemption Price (together with details as to the calculation thereof).

For the purposes of this Condition 6(b):

"**Adjusted Yield**" means the rate per annum equal to the Make Whole SORA OIS Rate appearing on the Screen Page at 6.00 p.m. (Singapore time) on the eighth business day prior to the date fixed for redemption plus [●] per cent. per annum;

"**Determination Agent**" means an independent investment bank of international repute, appointed by the Issuer (and notice thereof is given to the Noteholders (which notice shall be copied to the Trustee and the Issuing and Paying Agent) in writing) for the purposes of performing any of the functions expressed to be performed by it under these Conditions;

"**Optional Redemption Date**" means the date specified in the notice of redemption by the Issuer

as the date of redemption in accordance with this Condition 6(b);

"**Make Whole Redemption Price**" means, in respect of each Note, the greater of (i) the principal amount of such Note; and (ii) the amount determined by the Determination Agent by discounting to the Optional Redemption Date the principal amount of the Notes (plus all required remaining scheduled interest payments on such Note) at the Adjusted Yield;

"**Make Whole SORA OIS Rate**" means

(i) the SORA OIS reference rate appearing on the Screen Page corresponding to the duration of the remaining period to the Maturity Date (the "**relevant period**"), or

(ii) if there is no such SORA OIS reference rate corresponding to the relevant period, the interpolated interest rate as calculated using the SORA OIS reference rates appearing on the Screen Page for the two periods most closely approximating the duration of the remaining period to the Maturity Date,

expressed on a semi-annual compounding basis (rounded up, if necessary, to four decimal places), provided that if a Benchmark Event has occurred in relation to the Make Whole SORA OIS Rate (or any component part thereof), then such rate as determined in accordance with Condition 5(f); and

"**Screen Page**" means the "OTC SGD OIS" page on Bloomberg under the "BGN" panel and the column headed "Ask" (the "**Initial Screen Page**"), or such other screen page as may replace the Initial Screen Page on Bloomberg or, as the case may be, on such other information service that may replace Bloomberg as may be nominated by the person providing or

		sponsoring the information appearing on the Initial Screen Page for the purpose of displaying comparable rates, as determined by the Determination Agent."
23	Redemption at the Option of the Noteholders:	No
24	Redemption for Taxation Reasons:	Yes
	Issuer's Redemption Option Period (Condition 6(d)):	At any time upon the Issuer giving not less than 30 nor more than 60 days' notice to the Noteholders and notice to the Trustee and the Issuing and Paying Agent in writing
25	Redemption upon a Notes Cessation or Suspension of Trading:	No
26	Redemption upon a Shares Cessation or Suspension of Trading	No
27	Redemption Amount of each Note:	S$250,000 per Calculation Amount
28	Early Redemption Amount of each Note:	S$250,000 per Calculation Amount, save in the case of a Make Whole Redemption, wherein the Redemption Amount shall be the Make Whole Redemption Price
29	(vii) Prohibition of Sales to EEA Retail Investors:	Applicable

GENERAL PROVISIONS APPLICABLE TO THE NOTES

30	Form of Notes:	**Registered Notes**: Global Certificate exchangeable for Definitive Notes in the limited circumstances specified in the Global Certificate
31	Talons for future Coupons to be attached to Definitive Notes (and dates on which such Talons mature):	No
32	Consolidation provisions:	Not Applicable
33	Private Banking Rebate:	Not Applicable
34	Use of Proceeds:	The net proceeds from the issue of the Notes (after deducting issue expenses) will be used by the Issuer for the refinancing of existing debt and for general corporate purposes.
35	Other terms or special conditions:	Not Applicable

DISTRIBUTION

36	(i) If syndicated, names of Managers and respective commitment:	*Joint Lead Managers:* DBS Bank Ltd. Oversea-Chinese Banking Corporation Limited United Overseas Bank Limited *Co-Manager:* Industrial and Commercial Bank of China Limited, Singapore Branch

	(ii) Stabilisation Coordinator (if any):	DBS Bank Ltd.
37	If non-syndicated, name of Dealer:	Not Applicable
38	U.S. selling restrictions:	Reg. S Category 1; TEFRA Not Applicable
39	Additional selling restrictions:	Not Applicable
40	Terms of agreement or understanding with Manager(s) or Dealer:	Not Applicable

OPERATIONAL INFORMATION

41	ISIN Code:	To be obtained
42	Common Code:	To be obtained
43	Legal Entity Identifier:	549300IQ650PPXM76X03
44	Any clearing system(s) other than Euroclear, Clearstream, Luxembourg or CDP and the relevant identification number(s):	Not Applicable
45	Delivery:	Delivery free of payment
46	Additional Paying Agent(s) (if any):	Not Applicable

GENERAL

47	Applicable governing document:	Trust deed dated 17 October 2019 made between the Issuer and The Bank of New York Mellon, London Branch (as trustee), as supplemented by the Singapore supplemental trust deed dated 17 October 2019 made between the Issuer and The Bank of New York Mellon, London Branch (as trustee)
48	The aggregate principal amount of Notes in the Currency issued has been translated into Singapore dollars at the rate specified, producing a sum of:	Not Applicable
49	In the case of Registered Notes, specify the location of the office of the Registrar if other than Hong Kong or Singapore:	Not Applicable
50	In the case of Bearer Notes, specify the location of the office of the Issuing and Paying Agent if other than Hong Kong or Singapore:	Not Applicable
51	Ratings:	The Notes to be issued are unrated
52	Governing Law:	Singapore law

PURPOSE OF PRICING SUPPLEMENT

This Pricing Supplement comprises the final terms required for issue and admission to trading on the Singapore Exchange Securities Trading Limited of the Notes described herein pursuant to the S$1,500,000,000 Multicurrency Debt Issuance Programme of Singapore Exchange Limited.

STABILISATION

In connection with this issue, DBS Bank Ltd. (the "**Stabilisation Coordinator**") (or persons acting on behalf of the Stabilisation Coordinator) may over-allot Notes or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail. However, there is no assurance that the Stabilisation Coordinator (or persons acting on behalf of the Stabilisation Coordinator) will undertake stabilisation action. Any stabilisation action may begin on or after the date on which adequate public disclosure of the terms of the offer of the Notes is made and, if begun, may be ended at any time, but it must end no later than the earlier of 30 days after the issue date of the Notes and 60 days after the date of the allotment of the Notes. Any stabilisation action or overallotment must be conducted by the Stabilisation Coordinator (or persons acting on behalf of the Stabilisation Coordinator) in accordance with all applicable laws and rules.

INVESTMENT CONSIDERATIONS

There are significant risks associated with the Notes including, but not limited to, counterparty risk, country risk, price risk and liquidity risk. Investors should contact their own financial, legal, accounting and tax advisers about the risks associated with an investment in the Notes, the appropriate tools to analyse that investment, and the suitability of the investment in each investor's particular circumstances. No investor should purchase the Notes unless that investor understands and has sufficient financial resources to bear the price, market liquidity, structure and other risks associated with an investment in the Notes.

Before entering into any transaction, investors should ensure that they fully understand the potential risks and rewards of that transaction and independently determine that the transaction is appropriate given their objectives, experience, financial and operational resources and other relevant circumstances. Investors should consider consulting with such advisers as they deem necessary to assist them in making these determinations.

RESPONSIBILITY

The Issuer accepts responsibility for the information contained in this Pricing Supplement.

Signed on behalf of **Singapore Exchange Limited**:

By: ________________________________

Duly authorised

GENERAL INFORMATION

The sections titled "General Information" on pages 283 to 285 of the Original Offering Circular shall be deleted in their entirety and replaced by the following:

"

(1) **Listing of the Notes**: Approval in-principle has been received from the MAS for permission to deal in, and for the listing of, the Notes on the Official List of the SGX-ST. Approval in-principle from the MAS, admission to the Official List of the SGX-ST, and listing of the Notes on the SGX-ST are not to be taken as an indication of the merits of the Issuer, the Group, the Programme or the Notes. The MAS assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained in this Offering Circular. So long as any Notes are listed on the SGX-ST and the rules of the SGX-ST so require, the Notes will be traded on the SGX-ST in a minimum board lot size of S$200,000 or its equivalent in other specified currencies.

So long as any Notes are listed on the SGX-ST and the rules of the SGX-ST so require, the Issuer shall appoint and maintain a paying agent in Singapore, where such Notes may be presented or surrendered for payment or redemption, in the event that that Global Certificate representing such Notes is exchanged for definitive Notes. In addition, an announcement of such exchange will be made through the SGX-ST. Such announcement will include all material information with respect to the delivery of the definitive Notes, including details of the paying agent in Singapore.

(2) **Authorisations:** The Issuer has obtained all necessary consents, approvals and authorisations in Singapore in connection with the establishment of the Programme and the issue of the Notes. The establishment of the Programme was authorised by resolutions of the Board of Directors of the Issuer passed on 2 March 2018 and the issue of the Notes was authorised by resolutions of the Board of Directors of the Issuer passed on 29 January 2024.

(3) **No Material Adverse Change:** Except as disclosed in this Offering Circular, there has been no significant change in the financial or trading position of the Issuer or the Group since 31 December 2023 to the date of this Supplemental Offering Circular and no material adverse change in the prospects of the Issuer or the Group since 31 December 2023 to the date of this Supplemental Offering Circular.

(4) **Litigation:** Except as disclosed in this Offering Circular, none of the Issuer or any other members of the Group are involved in any legal or arbitration proceedings the outcome of which, in the opinion of the directors of the Issuer, may have or have had during the 12 months prior to the date of this Supplemental Offering Circular a material adverse effect on the financial position of the Issuer, and there are no such proceedings, so far as the Issuer and its directors are aware, pending or threatened against the Issuer or any other member of the Group.

(5) **Clearing of the Notes**: Application will be made for the Notes to be accepted for clearance through CDP (which is the entity in charge of keeping the records). The Common Code and ISIN of the Notes are to be obtained.

(6) **Legal Entity Identifier:** The Legal Entity Identifier of the Issuer is 549300IQ650PPXM76X03.

(7) **Substantial Shareholders**: According to the register of Substantial Shareholders maintained by the Issuer, the Issuer had no Substantial Shareholders as at 31 December 2023.

(8) **Available Documents**: The following documents will be available during usual business hours on any weekday (Saturdays, Sundays and public holidays excepted), for inspection at the principal place of business of the Trustee and the specified office of the Issuing and Paying Agent, the addresses,

following written request and proof of holding satisfactory to the Trustee or, as the case may be, the Issuing and Paying Agent:

(i) a copy of the Trust Deed and the Singapore Supplemental Trust Deed;

(ii) a copy of the Agency Agreement;

(iii) a copy of the constitutive documents of the Issuer;

(iv) copies of the Audited Consolidated Financial Statements and the Reviewed Interim Financial Statements;

(v) a copy of the Pricing Supplement; and

(vi) a copy of this Supplemental Offering Circular and the Original Offering Circular.

(9) **Independent Auditors**: KPMG is the independent auditors of the Group for the financial years ended 30 June 2021, 2022 and 2023, and for the half years ended 31 December 2022 and 2023. KPMG has (i) audited and rendered unqualified audit reports on the Audited Consolidated Financial Statements; and (ii) reviewed and rendered unqualified review reports on the Reviewed Interim Financial Statements, each of which are incorporated by reference in this Offering Circular.

KPMG has given and has not withdrawn its written consent to the inclusion and/or incorporation by reference herein of (i) its name and (ii) the independent auditor's reports on the Audited Consolidated Financial Statements and the Reviewed Interim Financial Statements, in the form and context in which they appear in this Offering Circular, and reference to its names and such reports in the form and context which they appear in this Offering Circular."